June 2, 1998

CONSOLIDATED QUESTIONS AND ANSWERS ON OTC NO_x BUDGET PROGRAM MONITORING AND REPORTING

A. General Reporting Questions

A1. QUESTION: Since my unit already reports much of the data needed to determine NO_x mass emissions, why do I have to report in the standard format required by the NO_x Budget Program?

ANSWER: The NO_x Budget Program is a Cap and Trade program that was developed because existing air pollution programs have not been able to solve all of the ozone problems in the northeast. There are several reasons that emissions must be monitored and reported consistently from source to source to run an emissions program. The first is that allowances are a tradable currency and it is important that people have assurance that they are equivalent. The second is that administering a Cap and Trade program involves comparing the allowances and emissions of all of the units in the program. In order to do this in a timely fashion, those emissions must be reported in a consistent fashion.

A2. QUESTION: If my unit is not currently affected by Acid Rain, how can I find out what my ORISPL code is?

ANSWER: The ORISPL code used by the EPA is the equivalent of the plant code and facility code used by utilities and nonutilities reporting to the Department of Energy's Energy Information Administration (EIA). For utilities reporting on the EIA-767, -860, and -861, the plant code must be used as the ORISPL code. For nonutilities reporting on the EIA-867, the facility code must be used as the ORISPL code.

If your unit does not generate electricity and is thus not required to report to EIA, it will not have an ORISPL code. In this case contact EPA's Acid Rain Division so that they can assign you a unique ORISPL code.

EPA and State agencies are currently developing a list of NO_x budget units for implementation purposes. This list will contain EIA ORISPL codes and Acid Rain Division ORIS codes assigned to non-generating units which should be used to report monitoring and emissions data to EPA. Draft lists, probably on a State-by-State basis, will be available to owners and operators on EPA's Home Page for comment and as a reference list.

A3. QUESTION: What is the Unit ID used for NO_x Budget Program purposes? Where do I obtain the ID?

ANSWER: If a budget unit is affected by the Acid Rain Program, the owner or operator must use the same Unit ID as is used for the Acid Rain Program. If a budget unit is not affected by the Acid Rain Program, the owner or operator must determine an appropriate ID that it will use for

all NBP submissions. This ID must be six or less alphanumeric characters. Do not use blanks or spaces within the ID. For utility units or electric power generators, EPA recommends that owners or operators use the ID reported to the EIA. For non-generating units, select an ID which is used for other State or federal reporting or is commonly used by plant personnel. Once you have submitted this ID on the AAR form, it must be used for all future submissions and may not be changed.

EPA and State agencies are currently developing a list of NO_x budget units for implementation purposes. This list will contain EIA ORISPL codes, Acid Rain Division ORIS codes assigned to non-generating units, and recommended unit IDs which should be used to report monitoring and emissions data to EPA. Draft lists, probably on a State-by-State basis, will be available to owners and operators on EPA's Home Page for comment and as a reference list.

A4. QUESTION: Is a new version of ETS being developed for the NBP? If so, when will it be available?

ANSWER: EPA will be upgrading its software to handle reports submitted in EDR V2.0 format. A new version of ETS-PC will be released in time to be used to submit data for the third quarter of 1998. EPA will also use a new version of their ETS mainframe software to process quarterly data files submitted for the third quarter of 1998.

A5. QUESTION: What are the requirements for a DAHS for non-Part 75 sources that choose to use a software program to generate EDRs with data such as MW, operating hours, and fuel usage (long term) coming from existing databases? The units would be using unit-specific or generic default NO_x rates with long term fuel flow rate determinations.

ANSWER: It is permissible to have a DAHS that uses data that is collected in existing data bases. If this approach is used, the AAR should do the following:

- Include each database as a component of the affected system.
- Explain as part of the monitoring plan which database is being used to supply which data elements.
- Be able to supply data for auditing purposes.

A6. QUESTION: For a non-Part 75 NO_x budget unit using both CEMS and non-CEMS monitoring systems, must we report all data annually, or just the CEMS data? For example, we plan to measure NO_x emission rate using a CEMS and fuel flowmeters to determine hourly heat input.

ANSWER: An AAR or Alternate AAR of a NO_x budget unit using NO_x CEMS or stack flow monitoring, or heat input based on CEMS, must submit an emissions report to EPA's Acid Rain

Division each calendar quarter that includes all of the general monitoring plan type data (this includes RT 100, 102, all 500 level data regardless of whether it is monitoring plan data for a CEMS and any necessary 900 level records) as well as any data relevant to the CEMS being used. For instance, if a unit was using a NO_x emission rate CEMS (including both a NO_x concentration monitor and a diluent monitor), they would have to report the necessary emissions data (RTs 201, 210 or 211 and 320) to support NO_x emission rate reporting. They would also have to submit the necessary quality assurance data (RT 230, and possibly 602, 603, 610, and 611). They would also have to report load data in RT 300. Units that use non CEMS data for any parameters (such as Appendix D fuel flow monitoring to report heat input) do not have to report data relevant to these systems in the non-ozone season. They also do not have to report summary data that is based on the non CEM data. For instance a unit using Appendix D would have to report fuel flow data during the ozone season (RTs 302/313 and/ or RTs 303/314) and emissions data that would be based on the heat input data (heat input data in RT 300 and RT 307 and NO_x mass emissions in RT 328). They also might have to report quality assurance data for the fuel flowmeter (RT 624).

A7. QUESTION: Where can I find the text (correctly formatted) for the NBP EDR RT 931? The EDR format document says to see the instructions for verbatim text but the instructions don't seem to have it.

ANSWER: Contact your State agency to obtain the verbatim text required in RT 931 or check on EPA's Acid Rain Program Home Page. Because the NBP is based on State regulations, each State may require certification statements which vary according to State requirements.

A8-A11. [Questions Omitted]

A12. QUESTION: What are the "Facility ID," the EPA AIRS Facility ID and the State Facility ID in RT 102 and how can we obtain them?

ANSWER: The Facility (FINDS) ID number in RT 102 is an EPA multi-media identifier that has been established for facilities to allow consistent identification across different programs. Large facilities already have been assigned these numbers. The EPA AIRS Facility ID is the identifier used by EPA to track information about the facility in EPA's Aerometric Information Retrieval System (AIRS). The State Facility ID is a State assigned Identifier for each plant which is used to identify the facility within the State agency. EPA is currently in the process of developing an inventory of NBP units which contains the Facility, ID (FINDS) and AIRS IDs. The lists will be available on the Acid Rain Home Page in February. For information on your State Facility ID, contact your State agency.

A13. QUESTION: RTs 900+ are used for DR certifications for the Acid Rain Program and ARD has published standard certification statements. Will there be similar template language provided for the NBP?

ANSWER: Yes, there will be State-specific standard certification statements. Contact your State agency or obtain applicable State regulations or guidance for additional information. (See Question A7, 11/6/97).

A14. QUESTION: What is the policy regarding submissions of draft EDR data? If RTs 900 are not included in the initial submission will EPA use the data regardless?

ANSWER: For the Acid Rain Program, ETS-PC provides an option for test submissions and this policy will probably be continued for the NBP. Each non-test submittal overwrites earlier submittals directly on the EPA mainframe, so a new submittal which included the RTs 900+ would replace an earlier file that was submitted without them. The last file submitted during the submission period is considered the "official" submission. RTs 900+ are not currently required. If you submit a file electronically without the certification records, you may submit a separate hardcopy letter certifying the data to meet the certification requirements. EPA will contact the AAR if there is no certification.

A15. QUESTION: If I have a unit using CEMS to measure NO_x concentration and stack flow, must I report NO_x lbs/mmBtu on an hourly basis in RT 320? Heat input in RT 300? This unit will be using Formula # N-2 for calculating NO_x lbs/hr.

ANSWER: No. If you use this methodology for a non-Part 75 NO_x budget unit, it is not necessary to report hourly heat input or NO_x emission rate (unless the State requires you to do so).

A16. QUESTION: The answer to Question A5 (November 6, 1997) indicates that a NO_x Budget Program DAHS can obtain necessary input data from an external data system. The question was asked in the context of a NBP unit using all default and long term fuel measurements, no CEMS. Can this concept be extended to allow a NBP DAHS to obtain CEMS raw emissions and operational data averages from a pre-existing Part 60 DAHS if sufficient documentation is provided to demonstrate proper NBP data processing?

ANSWER: Yes, the answer provided to Question A5 intentionally was not limited to a specific monitoring approach and would apply.

A17. QUESTION: We have a new facility starting up in 1998 with one Part 75 unit and one NO_x Budget-only unit. What EDR format do we use?

ANSWER: Submit quarterly reports using EDR v1.3 for the Part 75 units and EDR v2.0 for the NO_x Budget-only unit.

A18. QUESTION: Must a unit have NBP certified systems to obtain early reduction credits?

ANSWER: No, it is not necessary for a unit to have certified systems to receive early reduction credits. A unit may receive early reduction credits under the NO_x Budget Program during 1997 and 1998 based on State requirements or criteria. States will define these requirements and may award credits prior to system certification for the NO_x Budget Program.

A19. QUESTION: When will AARs be assigned the PIN to be used for electronic submissions of EDRs? Does each AAR have a single PIN or a different PIN for each source?

ANSWER: ARD will make PIN assignments by October 1, 1998. Each AAR will have only one PIN.

A20. QUESTION: When will submission of EDRs via the Internet be made available? We have had problems with the number of phone lines available for modem transmission.

ANSWER: EPA is working on that possibility and is also considering the conversion of ETS-PC to a windows-based program.

A21. QUESTION: The ETS mainframe currently will only run a full quarter's EDR. Would EPA consider modifying the program to analyze weekly or monthly reports so that we can QA our EDR more frequently and have more time to correct problems?

ANSWER: That is not currently planned, but EPA will consider the suggestion.

A22. QUESTION: Should the heat input fields in Record Types 300 and 307 be left blank for units which are not reporting Heat Input (i.e., are using Equation N-1 to determine mass NO_x)?

ANSWER: Yes. Leave heat input fields blank if you don't have to measure and report HI because you are using flow and a NOXC system to calculate NO_x mass. Note that this would not be an option in any State that requires monitoring and reporting hourly heat input.

A23. QUESTION: For non-Part 75 units reporting in EDR v2.0, will the format change?

ANSWER: Non-Part 75 units will continue to use EDR v2.0 if their State does not allow the changes provided by the Part 75 revisions or if the source elects not to implement any of the Part 75 changes. EDR v2.1 will be required for Part 75 units in the year 2000 and will support reporting changes for some additional options provided by the upcoming revisions to Part 75. States have not yet determined whether they will allow those options for OTC NBP units or how that would be implemented. Note that EPA's proposed NO_x trading Program for States in the SIP Call Region proposes to require Part 75 monitoring. This would require sources affected by the NO_x trading Program for States in the SIP Call Region to upgrade to EDR 2.1.

A24. QUESTION: How does the electronic signature in RTs 900+ work?

ANSWER: Record Type 930 and 931 must be contained in the quarterly report. These record types contain the standard certification statements and identify the AAR who is certifying and submitting the quarterly report. EPA will assign each a mainframe account ID and password to be used to submit the quarterly report. Using ETS-PC, the AAR submits the quarterly report, using his/her mainframe account ID and password. The quarterly report is considered certified because the AAR used a unique mainframe account ID and password to submit the file.

A25. QUESTION: What is the file naming convention for submitting OTC NBP monitoring plans on disk? For OTC NBP quarterly reports?

ANSWER: For monitoring plans, there is no standard convention, although EPA recommends using the ORIS Code as the key element of the file name. Label the disk clearly with the type of file, plant name, units and stacks and date of submission. For electronic quarterly reports, there is no naming convention required by EPA. The source may name the file as it wishes. EPA recommends that DRs or AARs name their file so that he or she can account for different versions if the file is submitted more than once.

A26. QUESTION: RT 328 includes a field for NO_x methodology for the hour. Is that intended to indicate hour by hour changes in NO_x monitoring method?

ANSWER: Yes. For most units and stacks the NO_x methodology will be the same for every hour (e.g., NOXR-CEMS). However, for units using fuel-specific default NO_x rates or Appendix E correlation curves, the NO_x methodology field will indicate which default rate or curve is applicable to each hour. This information in this field will be used by EPA to verify the calculation of hourly NO_x mass emissions. The following table provides record type correlations for NO_x methodology in RT 328. This table includes several NO_x methodology codes which have been added since the July 3, 1997 instructions including:

AE-MUL: To indicate separate correlation curves based on separate fuel testing.
GDEF-MUL: To indicate multiple fuel hours in which fuel-specific generic defaults and heat input were used to calculate NO_x mass.
NOXM-SUM: To indicate the sum of NOx mass values from multiple stacks.
NOXR-BYS: To indicate the use of NO_x MER during bypass hours for an unmonitored bypass stack during uncontrolled (or any) hour.
NOXR-BYS-C: To indicate the use of NO_x MER during bypass hours for an unmonitored bypass stack during controlled hours.
UDEF-GAS-C: To indicate the use of a unit-specific NO_x rate during hours in which gas is combusted and controls are operating.
UDEF-OIL-C: To indicate the use of a unit-specific NO_x rate during hours in which oil is combusted and controls are operating.
UDEF-MUL: To indicate the use of a fuel-specific unit-specific NO_x rates during hours in which multiple fuels are combusted.
UDEF-MUL-C: To indicate the use of a fuel-specific unit-specific NO_x rates during hours in which multiple fuels are combusted and controls are operating.

NO_x MASS METHODOLOGY FOR OTC NBP UNITS

Expected Record Correlations and Data Locations Based on RT 328 NO_x Methodology Field

NO_x Methodology Code	Expected NO_x Hourly Records	Expected HI/Flow Hourly Records Used for NO_x Mass Calculations	Expected Record for Unit Operating Time (UOT)/Fuel Usage Time	Other/Comments
AE-GAS	RT 324	RT 300	RT 300	
AE-MIX	RT 323	RT 300	RT 300	For Appendix E testing of fuel mixture only (one curve).
AE-MUL	RT 324	RT 302 and RT 303	RT 302 and RT 303	
AE-OIL	RT 324	RT 300	RT 300	
GDEF-GAS	RT 531 for gas	RT 300 or RT 531	RT 300 or RT 328	Consult HI Methodology to determine HI and UOT location.
GDEF-OIL	RT 531 for oil	RT 300 or RT 531	RT 300 or RT 328	Consult HI Methodology to determine HI and UOT location. Use this code for hours in which oil and gas are cofired if you elect to use oil default.
GDEF-MUL	RT 531 for oil RT 531 for gas	RT 302 and RT 303	RT 302 and RT 303	NO_x mass is calculated by summing the product of the oil default and heat input from hourly oil fuel flow and the product of the gas default and heat input from hourly gas fuel flow.

(cont.)

NO_x MASS METHODOLOGY FOR OTC NBP UNITS (cont.)

Expected Record Correlations and Data Locations Based on RT 328 NO_x Methodology Field

NO_x Methodology Code	Expected NO_x Hourly Records	Expected HI/Flow Hourly Records Used for NO_x Mass Calculations	Expected Record for Unit Operating Time (UOT)/Fuel Usage Time	Other/Comments
NOXM-CEMS	RT 201 RT 212 or RT 531 for moisture constant	RT 220	RT 300	Also need RT 520 formula.
NOXM-SUM	RTs 328 for multiple stacks	NA	NA	There may only be one multiple stack RT 328 for a given hour.
NOXR-BYS	RT 531 for NO_x MER	RT 300 or RT 531	RT 328	For unmonitored bypass stacks only, for uncontrolled or any hour.
NOXR-BYS-C	RT 531 for NO_x MER	RT 300 or RT 531	RT 328	For unmonitored bypass stacks only, for controlled hours.
NOXR-CEMS	RT 320	RT 300	RT 300	
UDEF-GAS	RT 531 for gas	RT 300 or RT 531	RT 300 or RT 328	Use NO_x default for uncontrolled or "any" hour. Consult HI Methodology to determine HI and UOT location.
UDEF-GAS-C	RT 531 for gas controlled hours	RT 300 or RT 531	RT 300 or RT 328	Use NO_x default for controlled hours. Consult HI Methodology to determine HI and UOT location.
UDEF-OIL	RT 531 for oil	RT 300 or RT 531	RT 300 or RT 328	Use NO_x default for uncontrolled or "any" hour. Consult HI Methodology to determine HI and UOT location. Use this code for hours in which oil and gas are co-fired if you elect to use oil default.
UDEF-OIL-C	RT 531 for oil controlled hours	RT 300 or RT 531	RT 300 or RT 328	Use NO_x default for controlled hours. Consult HI Methodology to determine HI and UOT location. Use this code for controlled hours in which oil and gas are co-fired if you elect to use oil default.
UDEF-MUL	RT 531 for oil RT 531 for gas	RT 302 and RT 303	RT 302 and RT 303	NO_x mass is calculated by summing the product of the oil default and heat input from hourly oil fuel flow and the product of the gas default and heat input from hourly gas fuel flow.
UDEF-MUL-C	RT 531 for oil for controlled hours RT 531 for gas for controlled hours	RT 302 and RT 303	RT 302 and RT 303	NO_x mass is calculated by summing the product of the oil default for controlled hours and heat input from hourly oil fuel flow and the product of the gas default for controlled hours and heat input from hourly gas fuel flow.

A27. QUESTION: Please clarify the monitoring and reporting requirements for the following scenario: mixed fuel firing hours (when gas is fired for part of the hour and oil the remainder of the hour) where a maximum default value is used to represent heat input for the secondary fuel (oil), but fuel flow is measured for the primary fuel (gas).

ANSWER: Use the maximum unit heat input rate and the measured NO_x rate to determine NO_x mass emissions for any hour in which the unmeasured fuel is burned. For those hours, report the maximum unit heat input rate in RT 300 and report the heat input methodology in RT 328 as MHHI (maximum hourly heat input capacity). Also report the gas fuel flow in RT 303 for those hours, but use the value "9" for "Source of Data Code for Gas Flow Rate" to indicate that the gas flow for that hour is not used to calculate heat input. This fuel flow data should be included in the data used for missing data lookback purposes.

A28. QUESTION: Must non-operating OTC NBP units submit quarterly reports, and if so, what record types should be included?

ANSWER: If an OTC NO_x budget unit has already begun reporting for the program and the unit does not operate for a given quarter (but does not notify the State that the unit has permanently retired), a quarterly report still must be submitted for that quarter. The quarterly report must contain the following record types:

Required Record Types

RT 100
RT 102
RT 307
RT 503 - 587 (as applicable)
RT 910 - 931 (as applicable)

Optional Record Types

RT 101
RT 999

No other record types should be submitted for a unit in a quarter in which the unit does not operate. In RT 307 the quarterly emissions and operations information in columns 18 - 27, 38 - 47 and 58 - 61 should contain zero’s, not blanks. If the unit operated in any previous quarter in the calendar year for which the quarterly report is being submitted, the cumulative emissions and operations information in columns 28 - 37, 48 - 57 and 62 - 90 must contain the sum of those emissions and operations values from all prior quarters in the calendar year.

A29. QUESTION: If the State in which my unit is located does not have a OTC NBP regulation in place by July 1, 1998 but expects to have a regulation by 1999, can I measure and

report emissions data and submit "practice" quarterly reports to EPA either in October 1998 or January 1999?

ANSWER: Yes. Contact your State or EPA for further information about the submission. If you choose to submit an EDR in October, you must submit a draft monitoring plan and Account Certificate of Representation (AAR form) to the State by August 3, 1998. If you choose to submit an EDR in January, 1999, you must submit a draft monitoring plan and AAR form to the State by November 2, 1998. The monitoring plan should contain all required electronic records in EDR v2.0 format and any other information necessary to support the proposed methodology and petitions anticipated as part of your final monitoring plan submission. If there are problems with the plan which affect reporting, EPA (to the extent time and resources allow) will provide comments on this plan prior to the quarterly report submission so that these problems can be corrected prior to the submission of the "practice" report. Note that your State must also submit a source list to the NETS/NATS administrator to process your practice report.

B. Common and Multiple Stack Reporting

B1. QUESTION: The submission instructions for RT 503 do not discuss the load fields in columns 37 and 43. A new record, RT 535, now exists for reporting this same kind of information. Are the maximum load fields in RT 503 optional for a common stack in the NO_x budget program?

ANSWER: EPA will use the data reported in RT 535. Therefore reporting the data in RT 503 is optional. If contradictory data is reported in RT 503 and RT 535, EPA will assume that the data reported in RT 535 is correct.

B2. QUESTION: For RTs 300, 307 and 328, what are the requirements for common stack units?

ANSWER: If a unit measures NO_x emission rate at the common stack, the owner or operator should report hourly 300 and 328 records and quarterly 307 records at the stack level. In certain circumstances some or all of these records may also be required at the unit level. Hourly RTs 300 will have to be reported at the unit level for units that monitor heat input at the unit level (many units using the Appendix D fuel flow monitoring provisions will fit in this category) or use unit load for missing data purposes. RTs 300 reported at the stack level will be used to report a summation of all of the individual unit level heat input rates and stack load. Unit level 300, 307 and 328 records may also be required if they are needed to support your State's allowance allocation methodology.

B3. QUESTION: If I report NO_x mass emissions for a common stack, how and when will these emissions be allocated to units for allowance accounting purposes?

ANSWER: As in the Acid Rain Program, this apportionment will be done only at the end of the year. The AAR or Alternate AAR will submit a form which informs EPA how the owner or operator of the source chooses to apportion emissions for that year. The owner or operator may change the apportionment from year to year. Unless it is required by your State, it is not necessary to apportion and report mass emissions on a unit basis if you monitor at the common stack.

B4. QUESTION: I have a facility which consists of a gas-fired turbine (Unit ID "5") that can emit into a primary stack (for example, MS5A) or a bypass stack (MS5B), but does not exhaust to both simultaneously. The bypass stack is unmonitored and a NO_x MER is used to represent NO_x emissions when the unit is in bypass mode. For the combined NO_x mass emissions reported in RT 328 for this unit, what unit ID should I use?

ANSWER: Report the NO_x mass for each multiple stack as "MS5A" and "MS5B" during any hour in which emissions exhaust through the stack. For each operating hour, report the total NO_x mass emissions for the Unit using the unit ID "5" for each hour. (See Question B10 for additional information.)

B5. QUESTION: For RT 585, please verify that for a combustion unit that may emit into either a main or bypass stack, and for which the bypass stack is un-monitored and whose NO_x emissions will be represented by a default MER value:

(1) A separate NO_x methodology record should be created to designate the procedure for determining NO_x during bypass stack operation, and that the proper methodology category is "UDEF".

(2) The appropriate Primary/Secondary Indicator for this bypass NO_x methodology is "Secondary", indicating that exhausting through the bypass stack is not the primary operating mode for the combustion unit.

ANSWER: Assumption (1) is correct. You should submit a second methodology record to identify the default as the emissions measurement methodology for the unit. However, assumption (2) is incorrect. The primary/secondary field defines the monitoring methodology as primary/secondary, not the operating mode as primary/secondary.

B6. QUESTION: Consider the following scenario: NO_x emission rate in lbs/mmBtu is determined at a common stack using a NO_x rate CEMS. For each unit emitting through the common stack, heat input is determined for each fuel using Appendix D methods. How should NO_x mass emissions and heat input be reported for this monitoring configuration?

ANSWER: See Question B2 (November 6, 1997). In general you will sum unit level heat input rates to report heat input rate for the common stack in hourly RTs 300. Multiply the stack heat input rate by the stack NO_x emission rate to determine NO_x mass emission rate (and by stack

operating time to determine NO_x mass emissions). Also report a quarterly RT 307 for the common stack. Do not report RT 307 or RT 328 for each unit unless required to do so by your State.

B7. QUESTION: Illustration No. 3 in Part 2 (VI)(B)(4) of the Reporting Instructions suggests that 307 records are not required to be reported for the (non-Part 75) units of a common stack. However Part 2 (IX)(B)(13) seems to indicate that there are cases where these records will be reported for common stack units. Please clarify. Also, there is a reference to "the NO_x mass information in fields 28-47" being left blank in the unit-specific RTs 307 when their reporting is not necessary. Those column references do not seem correct since they refer to the second of two NO_x mass fields and the first of two heat input fields. Please clarify.

ANSWER: Illustration No. 3 is correct for a common stack configuration in a State that does not require unit-level heat input for allowance allocation purposes. Where a State requires RTs 307 for units monitored at a common stack, columns 18-37 will be left blank. The reporting instructions for RT 307 will be revised to read:

> For each reporting period, submit RT 307 for each pipe, stack and unit at which NO_x mass emissions are measured or estimated. If you monitor NO_x at a common stack or pipe, it is not necessary to apportion NO_x mass emissions to the unit level, but it may be necessary to apportion and report heat input at the unit level depending upon your State's allocation/reallocation methodology.
>
> You must also report summed NO_x mass emission values and heat input values for individual units associated with multiple stacks or pipes. For example, if NO_x rate and flow are measured at a main stack (MS1) and bypass stack (MS2) for unit 1, report complete RTs 307 in the quarterly report for MS1, MS2, and unit 1.

B8. QUESTION: Part 2(VI)(B)(1) of the Reporting Instructions could be interpreted to mean that even if multiple units exhausting through a common stack are monitored for NO_x and heat input on a unit basis, all the units should must be included in one EDR file. I was told by an EPA representative that if such units do all monitoring at the unit level, separate EDRs should be submitted for each unit.

ANSWER: Quarterly EDR files should reflect the monitoring locations rather than the physical stack configuration. If units share a common stack but are each monitored completely separately, a separate EDR file should be submitted for each unit.

B9. QUESTION: I have a facility which consists of two gas/oil fired turbines (1 and 2) that emit to a common stack (CS1) which has a NO_x CEMS. The gas fuel flow is metered at a common gas main (CP1) for the two individual turbines. I plan to use a maximum heat input value for all hours during which oil is combusted. What Pipe or Stack IDs should be used for these units to report combined fuel heat input and NO_x mass emissions?

ANSWER: Report NO_x emission rate (RT 320) and NO_x mass emissions (RT 328) for all hours at CS1. For the various operating conditions, use the following guidelines:

> For any hour in which any oil is combusted at either unit, report the unit maximum heat input rate in RT 300 for each unit and sum those rates and report the total heat input rate in the RT 300 for CS1. In RT 328 for CS1, report the HI Methodology as "MHHI". If gas is also combusted during this hour, report RT 303 for CP1, but use "9" for the "Source of Data Code for Gas Flow Rate" to indicate that the gas flow for that hour is not used to calculate heat input.
>
> For any hour in which only gas is combusted by both units, report the total heat input for both units in RT 300 for CP1 and also in RT 300 for CS1. In RT 328 for CS1, report the HI Methodology as "FF-GAS". Also, report the apportioned heat input from gas in RT 300 for each unit if required to do so by your State.
>
> (For any hour in which no gas is combusted, do not report RT 303, but report a RT 300 for CP1 indicating zero operation.) .

B10. QUESTION: Please clarify the reporting requirements for a unit with a main stack with a NO_x rate CEMS and an un-monitored bypass stack. In particular, what should be reported for hours in which flue gas exhausts through the un-monitored bypass stack for part of the hour and the main stack for the remainder of the hour.

ANSWER: As indicated in the Technical Guidance, owners and operators of units with un-monitored bypass stacks should use the NO_x MER and unit heat input to determine NO_x mass emissions "for any hour in which the bypass stack is in use or is in use concurrent with the main stack." In the monitoring plan, define "MS" stacks for the unit (or "CS" stacks for common monitoring locations). Using the example from Question B4, you would define MS5A (main stack) and MS5B (bypass stack) for Unit 5. For MS5B (bypass stack), enter "B" in RT 503 column 61. Submit RTs 530 for MS5A (main stack) to define the MPC and span values. Submit RT 531 for MS5B defining NO_x MER as the default value for bypass hours. In RT 531 use the parameter "NOX" in column 10, indicate that it is to be used as a primary methodology (PM) in column 34 and indicate that the source of the value is "MPC." For units with add-on NO_x controls that operate during bypass hours, you also may define a NO_x MER value for controlled hours and indicate that the source of the value is "MEC." (Add these codes in the MPC software by using the "Tables Maintenance" option under "Utilities.") Also define those NO_x MER values in RT 531 for MS5A for missing data purposes. In the initial monitoring plan, provide documentation of the source of MEC and MPC values, NO_x MER calculations and (if relevant) parameters for determining the proper operation of add-on controls.

In the quarterly EDR, for any hour in which the unit operated but the bypass stack did not operate, report RT 320 and RT 328 for MS5A and report RT 328 for Unit 5 with the same NO_x mass value as MS5A. In the RT 328 for MS5A, report the NO_x monitoring methodology as NOXR-CEMS; in RT 328 for Unit 5, report the NO_x methodology as NOXM-SUM. For any hour in which the bypass stack operated (for part or all of the hour), calculate and report NO_x

mass in RT 328 for MS5B using the appropriate NO_x MER and unit heat input and report RT 328 for Unit 5 with the same NO_x mass value as MS5B. In RT 328 for MS5B, report the NO_x monitoring methodology as "NOXR-BYS" for uncontrolled hours or as "NOXR-BYS-C" for controlled hours. In RT 328 for Unit 5, report the NO_x monitoring methodology as NOXM-SUM. If MS5A also operated during a bypass hour, report RT 320 for MS5A, but do not report RT 328.

C. Reporting of Monitoring Plan Data

C1. QUESTION: The instructions for RT 504 describe the unit short name field. Since there is no unit short name field in RT 504, does this actually refer to the Unit ID field?

ANSWER: This is a mistake. The directions regarding the unit short name field should be disregarded.

C2. QUESTION: NO_x methodology start and end date in RT 585 specifies a date period (with no hour). Does this imply that the NO_x methodology can only be changed on a date boundary?

ANSWER: No, that was not the intention. NO_x methodology can be changed at any time during the day (provided the monitoring systems for the methodology have been certified). Note that it is only necessary to report this RT for a methodology when it is being initially certified. If you have certified two types of methodologies (for instance, the use of Appendix D to determine heat input from natural gas and the use of a default rate to determine the heat input rate from oil), it is not necessary to report a RT 585 each time you switch from one methodology to the other.

C3. QUESTION: Will submission of the monitoring plan print out from EPA's planned Monitoring Plan Checking Software satisfy a State's requirement for hardcopy monitoring plan submissions?

ANSWER: The software can be used to print out copies of the electronic monitoring plan data and should be used in place of the forms which were used for the Acid Rain Program. However, you must still submit in hardcopy the monitoring plan schematics, engineering drawings and any other supplemental information not represented in the EDR.

C4. QUESTION: The instructions for EDR V2.0 do not provide a way for us to identify a fuel flowmeter as a billing meter. Should we include this information in the monitoring plan?

ANSWER: The technical guidance allows the use of a billing fuel flowmeter for either long term fuel flow systems or systems recording hourly fuel flow. The instructions only addressed these components in the context of long term fuel flow systems. It is important to clearly identify billing fuel flow components in the monitoring plan because these components are exempt from

certification and ongoing quality assurance tests. Also, it is not necessary to provide detailed component information such as model and serial number for these components. To enable owners and operators to define these types of components, EPA is establishing two new component type codes:

BGFF	Billing Gas Fuel Flowmeters
BOFF	Billing Oil Fuel Flowmeters

C5. QUESTION: What date should we use to report provisional certification for a system? Is it the date on which testing is completed or data recorded? Why was the provisional certification date and hour retired from RT 510?

ANSWER: Because of the confusion about installation and provisional certification dates in RT 510 for the Acid Rain Program, EPA initially decided to delete this information from RT 510 and add RT 511 to report the date on which a monitoring system is provisionally certified and the date on which it is retired or no longer used. Since the publication of EDR V2.0 on July 3, 1997, a number of questions have been raised about the need for a separate record type for this information. Based on these comments, EPA is deleting RT 511 from EDR V2.0 and adding two new fields to RT 510 to report the date on which a system is first used to report data (column 100) and the date on which a system is last used to report data (column 108). For many units the "first date" for a primary monitoring system will be July 1, 1998. The "last date" will be blank until the system is retired and replaced by another system or methodology.

The following RT 510 replaces the RT 510 in EDR V2.0:

MONITORING PLAN INFORMATION								
RECORD TYPE	**PROGRAM**	**TYPE CODE**	**START COL**	**DATA ELEMENT DESCRIPTION**	**UNITS**	**RANGE**	**LENGTH**	**FORMAT (FTN)**
Monitoring Systems/ Analytical Components Table (Modified)	ARP NPB	510	1	Record Type Code			3	I3
			4	Unit/Stack/Pipe ID			6	A6
			10	Component ID			3	A3
			13	Monitoring System ID			3	A3
			16	Status (A-Add, C-Correct, D-Delete, U-Unchanged)		A,C,D,U	1	A1
			17	System parameter monitored [1]			4	A4
			21	Primary/backup designation [2]			2	A2
			23	Component type code [3]			4	A4
			27	Sample acquisition method			3	A3
			30	Manufacturer			25	A25
			55	Model/version			15	A15
			70	Serial number			20	A20
			90	Reserved			6	
			96	Reserved			4	
			100	First Date System Reported Data	YYYYMMDD		8	I8
			108	Last Date System Reported Data	YYYYMMDD		8	I8
					Total Record Length		115	

[1] Limited to a table of codes: System Parameter: CO2, FLOW, GAS, H2O, HI, IFLO, LTGS, LTOL, NOX, NOXO, O2, OILV, OILM, SO2, SO2R

[2] Limited to a table of codes: Primary/Backup Designation: P-primary, B-regular non-redundant backup, DB-data backup, RB-redundant backup, RM-reference method backup, B-like kind replacement non-redundant backup

[3] Limited to a table of codes: Component Type: BGFF, BOFF, CO2, CO2H, CO2L, DAHS, DL, DP, FLC, FLOW, GCH, GFFM, H2O, NOX, NOXH, NOXL, O2D, O2W, O2DH, O2DL, O2WH, O2WL, OFFM, PLC, PRB, PRES, SO2, SO2H, SO2L, TEMP

C6. QUESTION: Will the Monitoring Plan Information in the Monitoring Plan Checking Software be an adequate substitute for the hardcopy Monitoring Plan to be submitted to the States? (See also Question C3, 11/6/97).

ANSWER: States are responsible for Monitoring Plan requirements. Some States are allowing or requiring the submission of electronic monitoring plan data in place of hardcopy forms. Other States allow the submission of the printouts from the Monitoring Plan Checking Software Version 1.1 as the hardcopy submission of the basic information. Hardcopy submission of supplementary information, such as the schematics, engineering diagrams or other supporting documentation is still required. (See also Question C3, 11/6/97).

C7. QUESTION: Is it necessary to report the probe component of the NO_x system for a common stack?

ANSWER: The probe component would not be required for a single NO_x CEMS on a common stack because there is only a single non-time-shared NO_x system at the facility. If there were

time-shared systems, you would be required to identify the probes at each CEM location as unique components of each system.

C8. QUESTION: If both NO_x and Heat Input are "estimated" using defaults, must a schematic be included in the monitoring plan?

ANSWER: If both are determined by default, no schematic is needed.

C9. QUESTION: For a long term gas fuel flow system using monthly billing meters, what components and monitoring systems need to be defined in RT 510?

ANSWER: For a Long Term Gas System (LTGS) of this type, two components are required, the DAHS and the Billing Gas Fuel Flow meter (BGFF). If the long term fuel flow system used tank soundings instead of a billing meter and involved no specifically identifiable components, only a DAHS component would be included.

C10. QUESTION: If I operate a NBP unit which burns oil and gas and I elect to use Appendix E to determine hourly NO_x emission rate, what monitoring systems do I define in RT 510?

ANSWER: If you define one curve for gas and a different curve for oil, you would define two different NO_x systems, representing each of the Appendix E curves. One represents the NO_x curve for gas and the other represents the NO_x curve for oil. The systems would each contain one DAHS component.

C11. QUESTION: If I have a unit using a combination of CEMS and non-CEMS monitoring approaches, should I report the reporting frequency as quarterly or ozone season in RT 505?

ANSWER: In RT 505 indicate that reporting will be quarterly.

C12. QUESTION: If a unit is burning waste coal (i.e., culm or "gob") is this unit considered a "COAL" unit and is this the fuel type used in RT 587?

ANSWER: Yes. A unit that is burning waste coal is considered a coal-fired unit.

C13. QUESTION: Can data for years prior to 1997 or 1998 be entered in the Years 1 - 3 categories for RT 507? If so, what year is entered into the current Calendar Year field?

ANSWER: Data for years previous to 1997 or 1998 can be entered in the Years 1 - 3 categories for this record. Enter the current year (1998) into the Calendar Year field.

C14. QUESTION: Should I include existing monitors and systems not utilized in the NO_x Budget Program (for example, SO2 CEMS) in the NBP monitoring plan?

ANSWER: No.

C15. QUESTION: If RTs 510 in the monitoring plan require manufacturer names and serial numbers, but these components have not been purchased and installed, what do I submit in the monitoring plan for the unit?

ANSWER: Submit as much information in the monitoring plan as possible. RTs 510 with blank fields will be flagged by the Monitoring Plan Checking Software as incomplete. Explain in the submission letter why this information is missing. Resubmit the EDR monitoring plan data when you have purchased and installed equipment. States will not "approve" the monitoring plan until all information about the systems has been provided.

C16. QUESTION: How is the unit maximum hourly heat input (RT 504) determined?

ANSWER: It is the higher of the maximum rated heat input or the highest heat input measured in the last five years. The acceptability of the reported maximum heat input value will be determined as part of the monitoring plan review process.

C17. QUESTION: In RT 505, what are the State regulation code (column 32) and the State or Local regulatory agency code (column 42)?

ANSWER: The State regulation code field in column 32 of RT 505 contains a reference to the regulation establishing the program for which the record is submitted. For "NBP" program records, this field should contain a reference to the State regulation establishing NBP program requirements. If there is not yet a State regulation, leave this field blank. For an "ARP" program record, you may leave this field blank or reference "PART 75".

C18. QUESTION: Should the span effective date in RT 530 be the original certification date or the start of the NO_x Budget Program?

ANSWER: For non-Part 75 units it can be either date. For Part 75 units it should be the earliest date on which it was used for Part 75 reporting. Once you have reported a span record with an effective date, do not change this date unless you change the MPC, span or range. In the quarterly report, you should report the RT 530 with the original date, not the date which corresponds to the beginning of a quarter.

C19. QUESTION: Is RT 550 optional for NBP units?

ANSWER: Yes, RT 550 is now optional for all units, unless a State specifically requires it.

C20. QUESTION: The Technical Guidance document states that each monitoring plan submission should include in hardcopy a plan of EDR records to be submitted. What is this document and why is it part of the monitoring plan?

ANSWER: This document should list the EDR record types that will typically be included in the quarterly EDR for the unit(s). The applicable record types will vary depending on the type of unit and the monitoring approaches selected. This submission will help States and EPA provide up-front guidance so that quarterly reports will include the correct information and fewer resubmissions will be needed. The four example plans distributed at NBP meetings and posted on the Acid Rain Homepage (in adobe acrobat format) include the EDR record type document.

C21. QUESTION: Does a Monitoring system have to be defined (in RTs 510) for units using Unit specific default NO_x and maximum design heat input of the unit to calculate NO_x emissions?

ANSWER: No, it is not necessary to define systems representing default rates. (See Example Monitoring Plan #3.)

C22. QUESTION: We have a coal-fired boiler that has petitioned to use the maximum unit-specific heat input and a NO_x emission rate CEMS (lb/mmBtu). However, the Monitoring Plan Checking software does not include Coal (C) or Non Fuel Specific (NFS) in the fuel type picklist in RT 531. EDR Version v2.0 also does not include those choices, but EDR v2.0 Instructions for RT 531 include NFS and the code "CL" for coal. What should we submit in RT 531 in our monitoring plan EDR?

ANSWER: Both "coal" and "non-fuel specific" should have been included in the list of fuel types for RT 531 (and the code for coal should be "C" rather than "CL"). If you are defining unit-specific maximum heat input, you should list the fuel type in RT 531 as NFS. To do this in the Monitoring Plan Checking software, use the "Utilities" function from the main menu and go to "Tables Maintenance." Then scroll down and select "Fuel Type for Default/Min/Max (RT 531)" and add the code "NFS" to the list. (If you need to define a Default/Min or Max value specifically associated with coal, add the code "C" to this list.)

C23. QUESTION: If a unit is using long term fuel flow to determine heat input, what missing data approach should be entered for heat input in RT 585?

ANSWER: A unit that is using long term fuel flow to determine heat input may use either the highest value in the past three ozone seasons or a maximum hourly fuel flow value approved in the monitoring plan. If you use the highest value in the past three ozone seasons, use "MAX" as the missing data approach in RT 585 column 28. In the MPC v1.1. software, add the new code "MAX" to the look-up table for this field (using the Tables Maintenance option under Utilities).

For the maximum hourly fuel flow value, identify the missing data approach as "DEF" in RT 585 column 28 and also submit RT 531 containing the default value to be used.

C24. QUESTION: How is the maximum heat input rate in RT 504 used and why is it required for a unit using NO_x concentration and stack flow?

ANSWER: This information was included in the EDR to enable States to evaluate the suitability of various monitoring methodologies, particularly the requirement for the use of CEMS for all (non-peaking) units with a capacity greater than 250 mmBtu.

C25. QUESTION: I have a unit which burns process sludge, but there is no fuel-type code to support that in the monitoring plan checking software (MPC v.1.1) for RT 587. How do we submit the proper code?

ANSWER: Use the new fuel-type code "PRS" for process sludge. You may add this value to the list of acceptable values in the MPC v.1.1 software by accessing "Tables Maintenance" on the Utilities submenu.

C26. QUESTION: If I use long term fuel flow based on monthly billing for oil to determine heat input, what heat input methodology code would I report in RT 328 for these hours? The instructions do not provide a code for oil billing meters?

ANSWER: Once the fuel flow has been apportioned, the procedures from Part 75, Appendix D should be used to calculate heat input. Therefore in RT 328, use the appropriate Appendix D methodology codes.

C27. QUESTION: Who is responsible for submitting the NO_x Budget Program monitoring plan and are there any certification requirements for that submission?

ANSWER: The monitoring plan must be submitted by the AAR and the cover letter should include the following standard certification statement below, signed by the AAR:

> "I am authorized to make this submission on behalf of the owners and operators of the NO_x affected source and I hereby certify that I have personally examined the foregoing and am familiar with the information contained in this document, and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

D. Defining and Using Formulas

D1. QUESTION: If I measure fuel flow to determine hourly heat input and combust oil and gas during the same hour and I measure NO_x emission rate using a CEMS, should I create a formula to sum the calculated heat input from oil and gas to a single heat input rate value (which would be reported in RT 300) and then use this heat input to calculate NO_x mass emissions for the hour? Or can I use a NO_x mass emissions formula (F-10A) which contains both a gas NO_x mass equation and an oil NO_x mass equation and sums them together?

ANSWER: Please define a separate formula to determine the combined fuels' hourly heat input rate on an operating time-weighted basis. Use F-20C as the formula code. Report this formula in column 43 of RT 300 for each hour in which more than one fuel is combusted. Then use this heat input rate to calculate NO_x mass emissions using a standard formula F-10A.

D2. QUESTION: If I measure fuel flow to determine hourly heat input for a unit combusting oil and gas during the same hour and I use default NO_x emission rates to calculate NO_x mass emissions, do I submit separate formulas for NO_x mass based on oil and gas and then another formula to sum these values? Or can I submit one NO_x formula which is the sum of NO_x mass based on oil and NO_x mass based on gas?

ANSWER: You should submit three separate formulas for NO_x mass emissions: one formula to calculate NO_x mass based on the oil heat input times the oil default NO_x rate; one formula to calculate NO_x mass based on the gas heat input times the gas default NO_x rate; and one formula to sum the product of these formulas during hours when both fuels are combusted. During hours in which only one fuel is combusted report the fuel-specific formula in RT 328; in multiple fuel hours report the formula which sums the mass emissions from fuels. In addition, submit a formula to calculate the hourly heat input rate on an operating time-weighted basis for the unit (F-20C). Report hourly unit heat input representing combined fuels in RT 300 using this formula.

D3. QUESTION: Is it necessary to provide a separate formula in RT 520 to document the NO_x lb/hr summation process for multiple stacks? Such a summation is required for RT 328 (i.e. MNOxh_T= MNOxh_1 + MNOxh_2). Since this procedure consists of a straightforward summation, and does not require any adjustment for partial operating hours, inclusion of a separate formula would seem unnecessary. Are separate NO_x lb/hr summation formulas required?

ANSWER: Yes. As indicated in the instructions for RT 328, you must report a formula code for each operating hour RT 328. This formula must be defined in the monitoring plan. Use Formula code N-3 for this formula representing the sum of the NO_x mass emission from multiple stacks in your RT 520.

$$N\text{-}3 \qquad M_{NOx_h} = M_{NOx_1} + M_{NOx_2}$$

D4. QUESTION: I have an Appendix D unit combusting oil and gas, a NO_x CEMS and an unmonitored bypass stack for which I plan to use NO_x maximum emission rate. Do I need to define separate Formula IDs for a bypass stack?

ANSWER: Yes, you must define unique formulas for both the main and bypass stacks. First, you must assign multiple stack IDs for each stack in RT 503. For the bypass stack using unit MER as a default and measuring heat unit input from fuel flowmeters, you must create a formula to calculate NO_x mass emissions each hour. You must also define a unit NO_x mass formula which is the sum of the multiple stack values in the hour.

D5. QUESTION: Should a formula ID be reported in RT 328 for hours in which multiple fuels were burned individually? In other words, must there be a formula in the monitoring plan for totaling the hourly NO_x mass emissions reported in RTs 324 from multiple fuels or may the tons from different fuels simply be added with the formula ID left blank?

ANSWER: Yes, a formula ID is needed to represent the summing of NO_x mass emission derived from two separate Appendix E curves during a single hour.

D6. QUESTION: There seems to be an inconsistency between the answer to Question D2 (November 6, 1997) and the EDR v2.0. The description of column 43 of RT 300 says heat input Formula ID should be included for "CEMS only," but the answer says that a Formula ID should be provided for non-CEMS units combusting multiple fuels. Please clarify.

ANSWER: The answer to Question D2 is correct and future versions of the EDR and instructions will be modified to reflect this requirement.

D7. QUESTION: For computations to determine heat input using Appendix D, is operating time computed in minutes?

ANSWER: For NO_x Budget Program sources only (non Acid Rain sources) in RTs 302 and 303 fuel flow time is reported in fractions of an hour. You must measure operating time in at least quarter hours (for example, 0.25, 0.50, 0.75, 1.00), but you may elect to measure and reported in any fraction of an hour (0.01 - 1.00).

D8. QUESTION: The answer to Question D1 (November 6, 1997) indicates that for Appendix D units, the combined heat input rate for hours when multiple fuels are fired should be calculated as a time-weighted average of the heat input contributed by each fuel type using Formula F-20C. However, Formula F-20C does not reference gas and oil combustion.

ANSWER: Formula F-20C applies to both heat input weighting from multiple stacks and from multiple fuels.

Equation F-20C

$$HI_{Unit} = \frac{[HI_1\ t_1 + HI_2\ t_2]}{t_{Unit}}$$

D9. QUESTION: Equation F-7A calculates the dry-basis F-factor and Equation F-7B calculates the carbon-based F-factor. Is there an equivalent formula for calculating the wet-basis F-factor which is used in Equation 19-2 for NO_x lb/mmBtu?

ANSWER: Yes. 40 CFR, Part 60, Method 19 lists the following formula for calculating the wet-basis F-factor. In RT 520, identify this formula as formula code F-7C.

Equation F-7C

$$F_w = \frac{5.57(\%H) + 1.53(\%C) + 0.57(\%S) + 0.14(\%N) - 0.46(\%O) + 0.21(\%H_2O)}{GCV} \times 10^6$$

D10. QUESTION: If I elect to calculate F-factors using Equation F-7A which is based on fuel analysis, how often does this number have to be recalculated? If this number very rarely changes, could a default number be used instead (and reported in RT 531)? Normally the fuel is relatively consistent and this number does not vary by more than 5%. Operators check this number once per month to verify that it has not changed. Also, there is no parameter type for F-factor defined for RT 531.

ANSWER: The frequency would be dependant upon the variability of the fuel. You should include a petition in your monitoring plan indicating the frequency of sampling. This petition should include supporting data demonstrating the variability of the fuel. If you combust only the fuels listed in Table 1 of Appendix F of Part 75, you may use a default factor (these default factors are also listed in Table 2 of the EDR v2.0 instructions). Do not define the F-factor value in RT 531. Instead, indicate what F- factor is used in the formula in RT 520.

D11. QUESTION: Our unit burns various fuels with different F-factors. Must we use the worst case scenario for determining NO_x rate?

ANSWER: You have several options for applying F-factors: 1) Apply the highest of the applicable F-factors to each hour, 2) If each fuel is burned separately, apply the appropriate F-factor for each hour, 3) Use a formula to pro-rate the F-factor based on the relative contribution of each fuel for the hour. If you use option 1, list that F-factor value in the appropriate formula(s). If you use option 2, create separate formulas for each applicable F-factor. If you use option 3 and are using Appendix D to calculate heat input, include the F-factor proration formula in RT 520 and reference in the applicable formula(s). If you use option 3 and are not using

Appendix D to calculate heat input, then you submit a petition to use a prorated F-factor. The petition should include an explanation of how the source plans to determine heat input for each fuel burned at the unit.

D12. QUESTION: The NO_x Budget Program Monitoring Certification and Reporting Instructions (July 3, 1997) lists Formula 19-4 for calculating NO_x emissions rate from dry-basis NO_x concentration and wet-basis percent O_2. That formula appears to be incorrectly listed in Table 3. What is the correct formula for code 19-4?

ANSWER: The formula text listed in the July 3, 1997 reporting instructions is incorrect. The correct format for Formula 19-4 is as follows:

$$E = K \times \frac{(C_w \times F_d)}{(100 - \%H_2O)/100} \times \frac{20.9}{(20.9 - \%O_{2_d})}$$

E. Missing Data Reporting

E1. QUESTION: In the NBP guidance document Part 2.VI.F(5)(a) (Missing Data Procedures for Long Term Fuel Flow) it says to "Use the highest hourly fuel flow for any period during the previous three ozone seasons in which the unit operated." Taken literally, this can mean that you ignore the values in the current ozone season and just look at the previous three ozone seasons. Does the "previous three ozone seasons" include the current ozone season? Is that the current ozone season plus the last three ozone seasons or the current ozone season plus the last two ozone seasons? Does the three year look back rule apply here? What if the unit only operates, for example, every other ozone season? Does that mean we have to look back six years?

ANSWER: No, the current ozone season is not included in the look back period. The intention was to use the previous three seasons so that a single look back value could be used for the entire season. The look back should be based on the last three ozone seasons, not on the last three operating ozone seasons. This methodology was chosen to simplify the missing data routines for units with low mass emissions.

E2. QUESTION: Method code 55 hours are NOT included in look backs and count AGAINST percent monitor data availability. If a 12 hour missing data period occurs and EPA approves the use of method code 55 for 5 hours in the middle of the period, would the duration of the missing data period be counted as 12 hours or only 7 (remembering that the rules change for durations greater than 8 hours)?

ANSWER: The duration of the missing data period would be 12 hours.

E3. QUESTION: Please clarify that, for periods when a moisture system comprised of two O2 CEMS is not providing quality assured data, the procedures in Part 2(VI)(F)(9) of the Monitoring Guidance is to be used instead of substituting for the missing O2 value(s) per (VI)(F)(3) and then calculating moisture.

ANSWER: This is correct.

E4. QUESTION: Why are there differences in the CEMS heat input missing data requirements for Part 75 and for the NO_x Budget Program? If I have a Part 75 NO_x budget unit, which missing data approach should I use?

ANSWER: Part 75 units must comply with the Part 75 requirements for missing data. The technical guidance explains that the requirements in Part 2 of this document do not apply to Acid Rain units. Also, EPA is currently developing proposed changes to Part 75 which will probably affect the missing data requirements relating to heat input measurement and reporting, for units subject to Part 75.

For NO_x budget units, heat input based on CEMS data would typically be calculated using stack flow and diluent data from a NO_x emission rate system. If flow data were missing, you would perform missing data for flow, either using the Part 75 load-based procedures or the maximum potential flow rate approved in your monitoring plan by the State. If diluent data is missing, you would use missing data for NO_x emission rate for NO_x and use the diluent missing data options contained in the Technical Guidance to substitute a CO_2 or O_2 value for heat input for the hour.

E5. QUESTION: Why does RT 201 now contain fields for Adjusted NO_x concentration and percent monitor availability? Are these fields now required for Acid Rain units?

ANSWER: These additional fields should not be used by an Acid Rain unit. They should only be used by NO_x budget units electing to use a NO_x concentration monitoring system and a flow monitoring to measure NO_x mass emissions. The field for Adjusted NO_x concentration was provided to allow for the application of a bias adjustment factor following failure of the bias test for the NO_x concentration system. The percent availability field was provided to allow the use of load-based missing data procedures for NO_x concentration.

E6. QUESTION: The requirements for reporting NO_x emission rate when heat input is missing when using Appendix E for the NO_x Budget Program are different than the requirements under Part 75 (Policy Manual 15.19). Is it permissible to use the Part 75 requirements?

ANSWER: Yes, it is permissible to use the Part 75 missing data requirements. However, in EDR 2.0, the parameter status flag values have been modified. In addition to the codes Y, N and X described in Policy Manual Question 15.19, use "W" to indicate operation above the highest tested heat input point and "Z" to indicate operation below the lowest tested heat input point.

E7. QUESTION: Part 75 and the related Policy Manual guidance (15.19) has clarified how to derive NO_x lbs/mmBtu in Appendix E systems when Heat Input is missing, or unit or control system operating parameters are missing or out of range. Part 2 (VI)(F)(8) NO_x Budget guidance differs from the old Policy Manual guidance in several respects. First, if unit or control system operating parameters are not within their limits, the generic default NO_x rate is to be used instead of the maximum tabulated NO_x rate. Second, if heat input is missing and unit or control system operating parameters are not within their limits, maximum hourly heat input should be applied instead of substituting using Appendix D methods. Can an option be added to allow the use of standard Part 75 Appendix E practices to resolve periods of missing or out-of-spec data to help minimize software modifications?

ANSWER: See the answer to Question E6 (November 6, 1997).

E8. QUESTION: If we use the missing data substitution procedure for Hourly Moisture described in Part 2 (VI)(F)(9) of the Technical Guidance, should we use that substitute H_2O value to calculate for Heat Input, possibly NO_x Mass Emission Rate, and also NO_x Emission Rate?

ANSWER: Yes. Note that this would not be true for NO_x Emission Rate if you are using missing data substitution for NO_x Emission Rate due to a missing NO_x concentration value.

E9. QUESTION: Part 2 (VI)(F)(3) of the Technical Guidance (Missing Data Procedures for CO_2 and O_2 Used for Heat Input Calculations) differs from the current Part 75 methodology. The current Part 75 procedure entails the use of Appendix G methods of data substitution in certain cases, and is based on CO_2 percent monitor availability (PMA) of *the last operating hour of the previous EDR quarter*. The new OTC procedure includes no mention of Appendix G methods and is based on the PMA of CO_2 as of *the missing hour*.

One EPA representative at the 4/25 OTC meeting stated the new procedure is consistent with the procedure that will be part of the new Acid Rain rule requiring implementation by 1/1/2000. In an effort to eliminate the cost of maintaining two separate missing data substitution programs, may Part 75 units (whether or not they're affected by the NO_x Budget Program) begin using the methodology for CO_2 missing data substitution early?

ANSWER: No.

E10. QUESTION: Consider a Part 75/NBP source that must report a RT 202 as well as a RT 210. In some cases the MODC of "12" is necessary in the 202, however "12" is not listed as a legal value in the description of the 210 record in the Reporting Instructions. Would I have to report a MODC of "30" in the 210 for the same hour "12" is reported in the 202? Or is "12" actually a valid MODC for the RT 210?

ANSWER: Acid Rain units must conform to Part 75 requirements whether or not they are NO_x budget units. In this scenario, you would report RT 202 and no RT 210 and missing data for RT 320.

E11. QUESTION: Will all NBP sources have to submit data verifying the correct application of missing data substitution routines?

ANSWER: EPA is moving away from that type of requirement and will concentrate on checking the submitted data for accuracy. However, some States may require missing data verification and sources are expected to do their own testing because they are responsible for accurate missing data substitution.

E12. QUESTION: For a Part 60 and Part 75 CEMS system collecting data all year, data substituted per Part 75 requirements could violate the Part 60 limits. How can we avoid this problem?

ANSWER: EPA is working with States to establish consolidated reporting which would address this type of issue. A Part 75 substituted hour would generally be considered an hour on non-availability under Part 60. Therefore the "substitute" hour would not be considered for Part 60 purposes.

E13. QUESTION: For a coal fired unit, can a moisture constant be defined for missing data reasons only (backup or secondary methodology).

ANSWER: The Technical Guidance does not allow the use of a moisture constant for coal fired CEMS units, only for oil and gas units. The Technical Guidance options for Moisture missing data are in Section VI.F.(9). Moisture constants are not a listed option.

E14. QUESTION: Questions E6 and E7 indicate that units using Appendix E may substitute for missing data using either the Technical Guidance instructions or the Part 75 requirements. Please explain what codes are appropriate for each choice for "Missing Data Approach" in RT 585 and " NO_x methodology" in RT 328.

ANSWER: If you follow the Technical guidance and substitute the Generic Default NO_x Emission Rate when operating outside the parameter limits (for either controls or unit operation), indicate "DEF" as the missing data approach in RT 585 and define the appropriate NOXG value in RT 531 for missing data purposes. Report this value in RT 323 or 324. If you follow the Part 75 procedures and substitute the highest NO_x emission rate on the curve for the applicable fuel, indicate "SPTS" (Standard Part 75) as the missing data approach in RT 585. In either case, use the standard Appendix E NO_x methodology code in RT 328 for the hour ("AE-GAS", "AE-OIL", "AE-MIX" or "AE-MUL", as appropriate).

E15. QUESTION: Could you please provide an example of the usage of MODC's 54 and 55 in RT 201 and other emissions records? If the MODC of 54 is used for quality-assured data, why does it detract from monitor availability as described in Part 2, IX B (2) of the EDR v2.0 instructions?

ANSWER: EPA anticipates that MODC 54 will be used very infrequently. It may be used during a period when a unit's certified monitoring systems are down and the unit petitions to use another short term monitoring approach. In this instance, EPA feels it may be acceptable to use the data, but also believes that monitor availability should reflect the fact that the monitor that was supposed to be used, was not functional. For an example of code 55, see Question F17.

E16. QUESTION: If I provisionally certify my systems before the May 1, 1999 deadline, would I have to apply missing data (for out-of-control hours) from the provisional certification date or only starting May 1, 1999.

ANSWER: Use missing data reporting beginning with the first report submitted to EPA, regardless of whether or not monitors have been certified (a facility must begin tracking monitor availability with the first hour that they begin reporting). Once a monitor has been provisionally certified, an owner/operator must begin to quality assure that monitor. However, during the period between the provisional certification of the monitor and May 1, 1999, there are two options for quality assurance. The first is to meet all of the requirements of the NBP monitoring guidance. The second is to follow existing State procedures for quality assurance. This second option is only allowable if those procedures include a requirement to do daily calibrations and a requirement to do either quarterly linearity tests or quarterly CGAs. If owner/operator begins reporting before monitors are provisionally certified, he or she must reset monitor availability and restart missing data procedures at one of two points: the date and hour of provisional certification or 12:01 AM, May 1, 1999.

E17. QUESTION: When one component of a moisture system comprised of two O_2 CEMS is not providing quality assured data, should I substitute moisture as described in Part 2 (VI)(F)(9) of the Monitoring Guidance or should I substitute the missing O_2 value(s) per (VI)(F)(3) and then calculate moisture?

ANSWER: Use the moisture provisions in section F(9). Section F(3) is titled "Missing Data Procedures of a CO_2 or O_2 Used for Heat Input Calculations" and therefore does not apply to moisture systems.

E18. QUESTION: The guidance and instruction documents for the NO_x Budget Program allow the use of a diluent cap value, in place of the measured value, for calculating NO_x emission rate and heat input when a quality-assured hour of diluent data has been obtained that is below (for CO2) or above (for O2) certain values. The instructions provide an MODC of "14" for RT 320 and a diluent cap flag in RT 300 to indicate when the diluent cap provision has been implemented for NO_x and heat input, respectively. However, the instructions do not specify what MODC to

report in RT 210 or 211 when the diluent cap provision has been implemented. Previous Acid Rain Program Policy Manual Questions 14.39-14.41 state that in RT 210 or 211 the diluent cap value should be reported. Is that correct for NO_x Budget Program reporting?

ANSWER: No. Report the actual measured diluent value in RT 210 or 211. Use the MODC in RT 320 and the flag in RT 300 to indicate whether the applicable diluent cap value was substituted for the measured value in the NO_x rate and/or heat input calculations. (The Part 75 revisions will change the reporting requirements to be consistent with this guidance for EDR v2.1 for ARP units.)

E19. QUESTION: Will EPA publish checklists for verification of non-Part 75 missing data routines for the NBP?

ANSWER: No, EPA is not planning to publish checklists for those verifications.

F. Span and Range and Default Reporting

F1. QUESTION: If a NBP source is using a NOX concentration and FLOW monitor to calculate NO_x lb/hr and chooses to use maximums instead of Part 75 missing data for NO_x ppm, is the maximum reported in RT 530 or RT 531? If it is reported in RT 530, how can a maximum expected concentration and a maximum potential concentration both be reported? Would you use an MPC for uncontrolled hours and an MEC for controlled hours? RT 530 is required if you use a CEMS methodology. RT 531 is required if you are using a maximum for non-standard Part 75 missing data purposes. Do we use both?

ANSWER: You should report maximum NO_x concentration in both RTs 530 and 531. The value reported in the RT 530 should correspond to the value used to determine span and range. In other words, if it is the low scale you would report MEC and if it is the high scale you would report MPC. Similarly the value you report in RT 531 would correspond to whether it was being substituted in a controlled hour (MEC) or an uncontrolled hour (MPC). You should ensure that the values are consistent in these records.

F2. QUESTION: The technical guidance states that if the range of the NO_x analyzer selected to monitor typical emissions may be exceeded, a dual range analyzer or separate high scale analyzer should be utilized. However, the instructions for EDR V2.0 indicate that such units may elect to use a default NO_x concentration value (200% of MPC) instead of implementing dual ranging, and there are two fields in RT 530 (Dual spans required flag and Default high range value field) to support that option. Which methodology is correct?

ANSWER: The technical guidance requirements are correct; NO_x Budget units may not define a default high range value in lieu of a high range analyzer. The Technical Guidance allows you to use MPC for up to 72 hours. These fields were added to EDR V2.0 in anticipation of Part 75 rule

proposals but are not applicable to Acid Rain Units until the rule is promulgated. States may consider changing the NO_x Budget Program Technical Guidance to be consistent with these requirements at that time. The EDR V2.0 instructions will be revised to indicate that the default high range fields in RT 530 are not applicable to NO_x Budget units.

F3. QUESTION: The instructions for the MPC/MEC/MPF field (page 59) state to leave the field blank for CO2 and O2. Yet the missing data algorithm for CO2 and O2 contain cases requiring the substitution of maximum CO2 or minimum O2 "as defined in the monitoring plan." Are these values reported somewhere else, such as RT 531? Is it acceptable to report them in RT 530, even though the instructions say to leave them blank, if it makes the software logic more consistent and easier to develop?

ANSWER: You should define the maximum CO2 or minimum O2 used for missing data purposes in RT 531. For O2 the minimum value would not be the MPC. For CO2, EPA recommends a span of 20%, which is not based on MPC. The value that is used should be approved by the State as part of the monitoring plan. If you report a CO2 value which is inconsistent with either the CO2 span value or the maximum CO2 reported in RT 531, ETS may detect the inconsistency and report an error. For this reason, EPA recommends that you leave the MPC blank for O2 and CO2 span records (RT 530).

F4. QUESTION (REVISED): The Technical Guidance states that units with a bypass stack may use the maximum NO_x emission rate (MER) for all hours rather than installing a NO_x CEMS on that stack. However, the MER is calculated using the unit MPC and therefore is not appropriate for hours during which NO_x control devices are operating. Can I define a NO_x maximum emission rate based on NO_x maximum expected concentration (MEC) for bypass hours during which the unit is controlled?

ANSWER: See Question B10. The answer to B10 supersedes the previous answer to F4.

F5. QUESTION: The format for column 14 of RT 531 (Value of default, maximum, minimum, or constant) is F13.3. The instructions say that this value should be formatted "to the number of decimal places consistent with the value reported in the EDR". That means that the decimal place is always followed by three digits. In cases where there are less than three decimal places you report the number of decimal places that are appropriate followed by blanks.

One of the parameters to be reported in this record is density (DENS). The format for the density value in RT 302 is F8.5 which is incompatible with the stated format of F13.3 for RT 531. How should density of oil be reported in RT 531?

ANSWER: Use a maximum density value rounded (if necessary) to three decimal places.

F6. QUESTION: Is it necessary to document in RT 531 the O2 maximum value that is used to determine the NO_x MER?

ANSWER: No.

F7. QUESTION: Please verify that the maximum fuel flow rates used establish a fuel meter scale range need only be recorded in RT 540, and not RT 531.

ANSWER: Yes, they are only reported in RT 540.

F8. QUESTION: The Technical Guidance indicates that when the owner or operator of a unit uses a unit-specific default, he or she may have to report control information, when appropriate. When would this be appropriate?

ANSWER: On a routine basis, owners or operators must keep on-site the documentation needed to support use of the unit-specific controlled emission rate. A State may request submission of this information if a specific problem arises.

F9. QUESTION: If an owner or operator uses a NO_x CEMS and a certified stack flow monitor to calculate NO_x mass emissions directly, should the MER be reported in RT 530 on a lb/mmBtu basis?

ANSWER: No. For this monitoring approach it is not necessary to report NO_x MER in the high scale NO_x span record.

F10. QUESTION: RT 531 seems to require that default NO_x values used for overscaling will be reported in this record. However, the EDR v2.0 instructions for RT 531 do not include NO_x Concentration or Flow as parameters.

ANSWER: EPA has added "NOXC" and "FLOW" as acceptable parameters in RT 531.

F11. QUESTION: RT 531 includes parameter categories for maximum O_2 and minimum CO_2. Does this imply that the O_2 or CO_2 value used to calculate NO_x MER in RT 530 should be documented in RT 531? Or are these parameters only used when they are used directly in the data processing?

ANSWER: You do not need to document the O_2 or CO_2 values used for NO_x MER purposes in RT 531. (See Question F6, 11/6/97.)

F12. QUESTION: RT 530 requires the determination of a maximum NO_x emission rate (MER) for CEMS units. In Equations F-5 and F-6 how do you determine the appropriate values to be used for O_{2d} (Maximum oxygen concentration during normal conditions) and $\%CO_2$ (Minimum carbon dioxide concentration during normal operating conditions)?

ANSWER: Most owners and operators of Part 75 units required to do this have selected representative values of these parameters during normal load. Document the data and methodology used to determine these values and maintain them on site.

F13. QUESTION: Under what conditions must a dual range NO_x analyzer be used? Must a source with NO_x controls use a dual range NO_x analyzer?

ANSWER: The Technical Guidance states that "An owner or operator must install and certify an additional high analyzer range if the full scale range is exceeded for 72 or more hours in the ozone season." As noted in the answer to Question F2 (November 6, 1997) it is not acceptable to use a default value for all scale exceedances.

F14. QUESTION: If I use formula code 19-2 to calculate NO_x rate and therefore use the moisture constant of 0.027 for ambient air moisture fraction (B_{wa}), should I include that value in a RT 531?

ANSWER: No. Only include a moisture constant in RT 531 if you are an oil or gas unit using a moisture constant for effluent moisture ($\%H_2O$).

F15. QUESTION: Since 1998 is a "test" year for NBP reporting, we may burn oil during the ozone season. This would not affect our allowances, but we might exceed the NO_x analyzer range that is proposed for 1999 and beyond. Must we use a higher range for 1998 and then change it in 1999?

ANSWER: If the NO_x CEMS is only for NBP purposes, do not change the range just for 1998 monitoring.

F16. QUESTION: Please provide guidance about what to report in RT 531 for a NO_x concentration value to be used for full-scale exceedance events.

ANSWER: Unless required by your State, it is not necessary to report a RT 531 to define the NO_x concentration value(s) to be used during overscaling hours. Please note that new MODCs for reporting NO_x concentration during hours of overscaling have been defined in Question F17, and if you have a single scale NO_x monitor which can only monitor controlled emissions, you need to define NO_x MER values in RT 531. If you do define RT 531 for NO_x concentration for hours used during overscaling periods (from Table 2-1 or 2-2 of Part 75, Appendix A) use the code

"MPC" for Source of Value. Add this code to the MPC software by selecting Table Maintenance in the Utilities Menu.

F17. QUESTION: Our unit has post-combustion NO_x controls that are unlikely to be non-operational for more than 72 hours during the ozone season. We plan to certify a single range NO_x monitor that is scaled to monitor only controlled emissions. Please clarify the monitoring plan requirements for RTs 530 and 531 and explain the reporting requirements for scale exceedances caused by uncontrolled operation. Also, how do we report missing data during uncontrolled hours if the monitoring system is out-of-control? Would the requirements be the same for a unit with a single range NO_x monitor that infrequently burns a secondary fuel producing higher emission levels?

ANSWER: If you do not have more than 72 hours of operation during the ozone season that would produce emissions exceeding the NO_x monitor range (and you are not required to have an additional high scale for the purposes of meeting any other State or Federal requirement), you may install a single scale NO_x analyzer.

Monitoring Plan Requirements

Define a single RT 530 for the installed range and identify the scale as "high." For missing data purposes, define separate RTs 531 for maximum NO_x emission rate (MER) for controlled hours and uncontrolled hours (or for the primary fuel and the rarely used secondary fuel). (In the Monitoring Plan Checking software, use the "Tables Maintenance" option under "Utilities" to add the parameter "NOX" and the source of data codes "MPC" and "MEC" for RT 531.) Document in your initial monitoring plan the basis for the NO_x MEC and MPC values and the MER calculations. Also include documentation of the parameters that you have established to determine proper operation of emission controls and the acceptable ranges for those parameters. Note that unless it is required by your State, it is not necessary to report RT 531 to define the NO_x concentration value(s) to be used during overscaling hours.

Reporting Requirements for a Full-scale Exceedance

For any full-scale exceedance, substitute the appropriate NO_x MPC from Part 75, Appendix A, Table 2-1 or 2-2. Report the appropriate NO_x concentration value in RT 201 (in column 24 for a NO_x rate system or in column 32 for a NO_x concentration system) and report MODC 36. Use the substituted NO_x concentration in the NO_x rate and mass emissions calculations but treat it as a non-quality assured value and do not include it in the look back (it counts against availability). If you are calculating and reporting NO_x emission rate, report the calculated NO_x rate in RT 320 (Column 42), report the MODC as 55 and report the applicable formula ID (Column 50). As for any other hour, use the NO_x emission rate in RT 320 to calculate and report NO_x mass emissions in RT 328. If you are calculating NO_x mass using a NO_x concentration system and stack flow system, report the calculated NO_x mass emissions in RT 328 and report the NO_x methodology for the hour as "NOXM-CEMS".

Reporting Requirements for Missing Data Hours

Non-Part 75 OTC NBP units using NO_x CEMS may use the Part 75 load-based missing data procedures or may substitute maximum values for each missing data hour (MER for NOx rate systems and MPC/MEC for NO_x concentration systems). For any hour in which the NO_x system is out-of-control and the parameters established to demonstrate proper operation of NO_x emission controls are exceeded (or a fuel associated with higher emissions is combusted), you must substitute NO_x values that do not underestimate emissions.

Part 75 Load-Based Missing Data Procedures
If you elect to use Part 75 load based procedures, note that as specified in 40 CFR Section 75.34, standard missing data procedures do not apply to hours during which controls were not properly operating.

NOx Concentration Systems
Substitute in RT 201 the NO_x MPC (as defined in RT 531 for uncontrolled hours) and report MODC 30; For missing data hours during which controls are operating properly, use the load-based missing data procedures defined in Part 75; if the maximum NOx value must be substituted (MEC), report MODC 31 in RT 201.

NOx Emission Rate Systems
Substitute in RT 320 the NO_x MER (as defined in RT 531 for uncontrolled hours) and report MODC 30. For missing data hours during which controls are operating properly, use the load-based missing data procedures defined in Part 75; if maximum values must be substituted (MER for controlled hours) report MODC 31 in RT 320.

Default Value Missing Data Procedures
You may use a default for controlled hours and another default for uncontrolled hours, as defined in RT 531.

NOx Concentration Systems
Substitute in RT 201 the NO_x MPC (as defined in RT 531 for uncontrolled hours) and report MODC 30; For missing data hours during which controls are operating properly, substitute in RT 201 the NOx MEC (as defined in RT 531 for controlled hours) and report MODC 31.

NOx Emission Rate Systems
Substitute in RT 320 the NO_x MER (as defined in RT 531 for uncontrolled hours) and report MODC 30. For missing data hours during which controls are operating properly, substitute the NOx MER (as define in RT 531 for controlled hours) and report MODC 31.

For controlled units, you are required to monitor and record (but not report) parameter values which indicate proper operation of control equipment or type of fuel combusted for any hour in which the NO_x MEC or MER for controlled hours is used.

F18. QUESTION: Please clarify the reporting requirements for a NO_x full-scale range exceedance at an uncontrolled unit that did not switch fuels.

ANSWER: For this type of full-scale exceedance report 150% of the full scale range value in RT 201 (in column 24 for a NO_x rate system or in column 32 for a NO_x concentration system) and report MODC 35. Use the substituted NO_x concentration in the NO_x rate and mass emissions calculations but treat it as a non-quality assured value and do not include it in the look back (it counts against availability). If you are calculating and reporting NO_x emission rate, report the calculated NO_x rate in RT 320 (Column 42), report the MODC as 55 and report the applicable formula ID (Column 50). As for any other hour, use the NO_x emission rate in RT 320 to calculate and report NO_x mass emissions in RT 328. If you are calculating NO_x mass using a NO_x concentration system and stack flow system, report the calculated NO_x mass emissions in RT 328 and report the NO_x methodology for the hour as "NOXM-CEMS". It is not necessary to identify this default value in RT 531, unless required to do so by your State.

F19. QUESTION: If O_2 emissions exceed the diluent monitor full-scale range, can we use the diluent cap value for that hour?

ANSWER: No. Unless you have set the O2 range too low (for example, below 21%), it is unlikely that a full-scale exceedance is a valid reading. Use missing data procedures for these hours.

F20. QUESTION: Regarding dual range NO_x analyzers for an existing Part 75 unit which is affected by NO_x Budget: Do we need two component IDs for the NO_x low and high ranges - as required by the NO_x Budget regulations? If so, do we need two separate NO_x rate equations in the 520 records - One referencing the low range, the other for the high range ?

ANSWER: The current version of Part 75 does not require defining separate component IDs for the low and high scales of a dual-range analyzer and Part 75 units are not required to change current component and system definitions for the NO_x Budget Program. However, if you choose to update your monitoring system information for EDR v2.0, you may define two component IDs for a dual range NO_x analyzer. Identify the component representing the high scale as component type "NOXH" and the component representing the low scale as component type "NOXL". (Note that you will also have to comply with any additional requirements associated with the revisions to Part 75, once those are final.) In RT 520, define a single NO_x formula referencing the NO_x component ID associated with normal emissions (e.g., the NOXL component if NO_x controls are usually operating). This is consistent with the EDR v2.0 instructions which specify that units with primary and backup systems reference only the primary system in formulas.

G. Reporting Quality Assurance and Certification Test Data for CEM Units

G1. QUESTION: The record ordering instructions for RT 230 of the EDR V2.0 Instructions contradict the instructions earlier in the document. The page 22 instructions say to sort by date, time, and component/system ID, which is consistent with the record ordering requirements for the ARP. Should the page 22 instructions be used?

ANSWER: Yes, follow the directions on page 22 and sort by date, time and component/system ID as is currently done for the Acid Rain Program.

G2. QUESTION: The NBP Technical Guidance indicates that if RATA results are between 10.0% and 20.0% (or ±0.02 - 0.04 lb/mmBtu for low emitter NO_x emission rate systems), an adjustment factor of 1.1 should be reported in the RT 611. However, the EDR V2.0 documentation indicates that 1.2 should be used for the adjustment factor in this case. Which one is correct?

ANSWER: The NBP Technical Guidance is correct. An adjustment factor of 1.1 should be used.

G3. QUESTION: Please verify that the same low emitter performance specifications established for initial certification RATA testing also apply to periodic quality assurance audits.

ANSWER: This is correct.

G4. QUESTION: If the gas flow billing meter is to be used in determining heat input, does it need to be certified? Do I need to submit a RT 540?

ANSWER: No. Billing meters are exempt from certification requirements. Also, you do not need to report a RT 540 for a system comprised of a billing meter.

G5. QUESTION: Does new DAHS software needed to be installed and operational prior to conducting a RATA for certification purposes?

ANSWER: Yes. The DAHS software is part of the system and must be present to be certified.

G6. QUESTION: Can the certifications of different systems be done at different times?

ANSWER: Yes. Different systems at the same unit, stack or pipe may be certified at different times.

G7. QUESTION: What is the policy regarding off-line quarterly linearity checks and daily calibrations? Will off-line linearities be allowed during the non-ozone season?

ANSWER: Off-line daily calibrations are allowed if an off-line/on-line demonstration shows that the component passed the off-line calibration and a subsequent on-line calibrations within 24 operating hours (without adjusting the monitor). However, off-line linearity tests are not allowed.

G8. QUESTION: Is the hard copy RATA data still considered to be the "true" RATA data if there are discrepancies between it and the EDR certification data?

ANSWER: Unless the State establishes a specific policy on the interpretation of contradictory data, it is likely that the State will call the owner or operator and request additional information or clarification if there is a discrepancy between hard copy and EDR data.

G9. QUESTION: There are five options in the Technical Guidance for fuel meter certifications. Two of those, tank drop and heat input RATAs, are only allowed for the NO_x Budget Program. How should I report these tests in the RT 600+s?

ANSWER: Report the date and outcome of all tank drop accuracy tests in RT 624. Report the heat input RATA in RTs 610 and 611. In RT 610 report the heat input calculated from the fuel flowmeter readings in column 34 and perform the relative accuracy calculations required in Part 75, Appendix A. No bias test is required.

G10. QUESTION: What tests are required for CEMS system certifications?

ANSWER: CEMS certification testing generally consists of the required Part 75 tests (RATA, 7-day calibration, linearity and cycle time tests). Consult the NBP Technical Guidance for information on the use of tests previously conducted for other programs, subject to State approval, to meet initial certification requirements.

G11. QUESTION: We currently perform a RATA on a NO_x pounds basis. Doesn't the NO_x Budget Program require separate testing and certification of the Flow system and the NO_x concentration or emission rate system?

ANSWER: Yes. The NO_x Budget Program requires the submission of Relative Accuracy test results for the flow system and a separate submission for either the NO_x concentration or emission rate system. However, you should be able to use the data from the tests performed concurrently to support NO_x pounds relative accuracy to determine the relative accuracy of each separate system.

G12. QUESTION: What certification or quality assurance is required for long term fuel flow systems?

ANSWER: That will be approved as part of the petition to use a long term fuel flow system and the monitoring plan review process. EPA and States will try to coordinate approvals of alternatives in different States so that similar methods are treated consistently.

G13. QUESTION: If we measure fuel flow hourly, must we certify and quality assure the fuel flowmeter(s) per Part 75, Appendix D requirements?

ANSWER: Yes, unless you are using billing meters, which do not require initial certification tests or ongoing quality assurance.

G14. QUESTION: If the NBP guidance requires a change in the span and range of an existing system, must that system be recertified?

ANSWER: If a new analyzer is needed, recertification would be required. The NBP requirements were designed with the intention of minimizing the need for rescaling existing monitors. However, if rescaling is necessary, all NBP units should follow the Part 75 requirements.

G15. QUESTION: Can a non-peaking non-Part 75 unit do single load flow RATA testing for certification and ongoing QA?

ANSWER: To qualify for single load flow RATAs, the technical guidance specifies that the AAR must petition the State and demonstrate that the unit operates at a constant load (within 10% of the average load for 90% of the previous year).

G16. QUESTION: Is a certification application required for units using a unit-specific default and long term fuel flow?

ANSWER: The certification application for a unit using those approaches would consist of the results of testing to determine the unit-specific default as well as documentation of the fuel flowmeter certification (if relevant).

G17. QUESTION: Will preinstalled and certified flow monitoring systems, specifically those using S-type pitot technology, be acceptable for NBP monitoring? If yes, do any preconditions apply?

ANSWER: If a monitor can meet all of the initial and ongoing quality assurance requirements of the NO_x Budget Program, it may be used. For an S-type pitot tube this would include:

For initial certification:

1. RATA and bias test (3 load unless on a peaking unit, bypass stack or otherwise approved by your State).
2. 7-day calibration error test (a State may choose to wave this requirement if a similar test has been performed in the past.)

For ongoing quality assurance:

1. Annual or semi-annual RATAs and bias test (frequency depends upon relative accuracy attained).
2. Daily calibration checks
3. Daily interference checks
4. Quarterly leak check

G18. QUESTION: Our certification RATA is due by July, 1998, which means we would have to complete it in the second quarter of 1998. Does this mean that we must do two RATAs in 1999?

ANSWER: There is no requirement for owners or operators of a non-Part 75 NO_x Budget Unit to perform an initial RATA in the second quarter of 1998. All NBP CEMS systems must be certified by May 1, 1999. Any RATA performed successfully in the calendar year prior to this initial certification date will meet the initial certification requirement. Thereafter, a RATA must be performed "at least once every calendar year." For example, if you conduct a RATA and other tests in July 1998, the monitoring system is certified to report data on May 1, 1999. You must perform another RATA in calendar year 1999.

G19. QUESTION: Is the calibration test for a differential pressure type flow monitor just on the DP transmitter or on the whole system?

ANSWER: The test is for the entire system (See section 2.2.2.1 of Appendix A of Part 75).

G20. QUESTION: Can non-protocol 1 gases be used for calibrations and linearities during the non-ozone season?

ANSWER: The Technical Guidance state that State requirements apply to calibration gases during the non-ozone season. States may elect to require Protocol 1 gases for the NBP.

G21. QUESTION: What are the certification requirements for using long term fuel flow and a unit-specific default NO_x rate?

ANSWER: You must perform initial testing to establish the unit-specific default, as described in the NO_x Budget Program Technical Guidance. The long term fuel flow certification requirements

depend upon the source of the value. You should coordinate with your State to ensure that you provide adequate supporting information. For example, monthly gas purchase would probably be sufficient without additional certification testing. A tank sounding method would also probably not require certification testing, but the methodology that will be used should be clearly outlined to the State in the petition to use the methodology.

G22. QUESTION: Is a Part 60 CEMS system already considered certified for the OTC NBP?

ANSWER: No. CEMS for the NBP must meet Part 75 certification requirements, with some exceptions. You must do a linearity check (instead of a CGA) and a RATA meeting Part 75 requirements. You should schedule those tests so that they qualify for both Part 60 and the OTC NBP. You will also have to perform a cycle time test if that is not already part of the required QA tests for Part 60.

G23. QUESTION: In RT 611 (RATA summary), should we report 1.100 in the "data adjustment factor" field if the relative accuracy is greater than 10% (and less than 20%)?

ANSWER: Yes.

G24. QUESTION: For a three-load flow RATA in which the system passes the Bias test at normal load, do we report the actual BAF in RTs 611 for the other two load, or do we report the BAF as 1.000 in all three loads?

ANSWER: When the Bias test is passed at normal load, it is not necessary to calculate a BAF at the other loads tested. Therefore, for the normal load report 1.000 as the BAF in RT 611 column 111 and also report 1.000 in RT 611 column 134. For the other loads tested, either leave RT 611 column 111 blank or report the calculated BAF for that load level in RT 611 column 111.

G25. QUESTION: Systems with a relative accuracy of greater than 10% but less than 20% qualify for certification but must apply an adjustment factor of 1.100. Is there an equivalent provision for low emitters?

ANSWER: Yes. Units/stacks with a NO_x rate less than 0.20 lb/mmBtu can be certified if the accuracy is < 0.04 lb/mmBtu. If greater than 0.02 lb/mmBtu, the adjustment factor of 1.100 must be applied.

H. Appendix E Reporting

H1. QUESTION: For optional RT 325, the instructions state that the NO_x emission rate for the hour may be calculated based on the heat input weighted average NO_x emission rates for each

fuel, as is done in Part 75. However, the instructions for RT 328 indicate that this calculation method would not work. "If it is not possible to determine a single NO_x mass emissions rate for the hour (for example, if two fuels were combusted for different portions of the hour and you are using Appendix E), you may leave this field blank." Why is this method acceptable under Part 75 but not possible for the NBP?

ANSWER: The value that is required in columns 22-31 is the NO_x mass emission rate. When determining NO_x mass for an Appendix E unit, the mass values are determined by determining the mass emission rates for each fuel, converting them to total NO_x mass for each fuel for each hour and then summing them. While it would be possible to determine an hourly NO_x mass emission rate, this is not a value used in determining NO_x mass and therefore it is not needed.

H2. QUESTION: In RT 328 there are three options available for reporting hourly Appendix E methodology. We assume that AE-GAS is used when testing was done on a single gas, AE-OIL is used when testing was done on a single oil, and AE-MIX is used when testing was done on a mixture of fuels. Which methodology should be specified for hours when gas was burned for part of the hour and oil is burned during the rest of the hour? Should we specify AE-MIX even though the fuels were not tested or correlated as a mixture?

ANSWER: No, AE-MIX should only be used if the testing was done on a mixture of fuels. EPA is adding a new code AE-MUL that should be used when multiple fuels are burned but individual fuel emission rate curves are used.

H3. QUESTION: Part 75 regulations require three runs per load level to establish NO_x correlation curves for Appendix E (2.1.2.3). NBP requires nine (EDR 2.0 Instructions page 116). Should a Part 75 NBP source using Appendix E just do three runs? Or three runs for ARP and nine runs for NBP? Or nine runs to be used for ARP and NBP?

ANSWER: Page 116 of the EDR V2.0 Instructions is in error. Appendix E testing for non-Part 75 units should follow the procedures laid out in Appendix E of Part 75. Only 3 runs are required at each load level.

H4. QUESTION: What segment ID should be reported in RT 323 or 324 if you exceed the maximum tabulated heat input?

ANSWER: If you exceed the maximum heat input you should report the higher of the maximum emission rate and the extrapolation of the last line segment. If you report the MER, leave the segment ID blank. If you report using an extrapolation from the last segment ID report the last segment ID.

H5. QUESTION: There is a new RT 560 in the EDR which is meant to replace the requirement for entering formulas for the Appendix E line segments in RT 520. A RT 560 is submitted for

each line segment used in Appendix E and denotes each segment with an ID. However, the documentation does not tell what ID should be reported if you exceed the maximum tabulated heat input. According to the policy manual, you should report the greater of the maximum emission rate (MER) and the extrapolation of the last segment. I assume we blank the segment ID when we use MER but report the last Segment ID if we use the extrapolated value. Is this correct?

ANSWER: Yes.

I. Reporting Identical Groups for Appendix E or Source Specific NO_x Emission Rates

I1. QUESTION: In the submission instructions for RT 660, to generate the Group ID it says to begin with the letters "GP" and follow it with the ORIS Code of one of the Units. It then states that Facility IDs are unique for the NBP. Our understanding is that Facility IDs were given to an entire site that may have several groups of units. This is verified in section II of the "NO_x Budget Program Technical Guidance: Part 2" section A Facility Information. How are Group IDs formed if there are more than one group at the same facility? For example, let's say there are 10 units at a facility, 5 of type A and 5 of type B. The utility decides to split them into two groups. Wouldn't both groups have the same group ID if the rules above are followed?

ANSWER: If a single facility has multiple groups, use the following alternative method to generate the group ID. Begin with the letter G, follow it with a unique one digit number for each group at the facility. Follow this with the ORIS Code for the facility.

I2. QUESTION: If doing group testing for Appendix E methodology, are RTs 560 reported in each EDR associated with the group, or just RTs 661?

ANSWER: Each units EDR submission should include the RT 661 representing the group, the RTs 560 representing the groups emission rate curves and a RT 660 indicating each unit in the group.

I3. QUESTION: Should RTs 650-653 only be reported for the Unit ID that actually did the testing or should this unit test data also be reported in the EDR's of the other identical units?

ANSWER: RTs 650-653 should only be reported for the Unit ID that actually did the test.

J. Alternative Heat Input Methodology Reporting

J1. QUESTION: For the operator field in RT 352 (columns 28-30), is it possible to use LT, GT, GE, LE, and EQ, which are standard in FORTRAN, instead of LT, GT, LTE, GTE, and E?

ANSWER: EPA believes this suggestion makes sense, EPA is updating EDR V2.0 to indicate that the standard FORTRAN operators should be used (the codes in the July 3, 1997 version are not allowed).

J2. QUESTION: Because RT 550 will be optional in the year 2000, why is this record included in the NO_x Budget Program (NBP)? It should be optional for this program.

ANSWER: It is optional for the NBP. It is still allowed because some DAHS vendors have automated at least some RT 550 reporting and ARD does not feel that it is necessary to spend time and effort deleting this work. In addition, during discussions on Acid Rain some sources indicated that they liked the option of using the EDR to report missing data reasons, because it made their overall recordkeeping simpler. (This may be less applicable for the NBP since there is no specific requirement to record reasons for missing data, but might be useful if individual States have such requirements).

J3. QUESTION: If NO_x lb/hr is calculated from NO_x ppm and stack flow, using methodology NOXM-CEMS, then no heat input methodology is required. We assume the heat input methodology field in the hourly RT 328 will be left blank. Should the heat input field in RT 300 also be left blank? Should the cumulative heat input value in RT 307 be left blank?

ANSWER: Yes, the heat input fields in RT 300, 307 and 328 should be left blank. Note that this methodology is not allowed if your State requires individual unit heat input reporting for purposes of reallocation of allowances.

J4. QUESTION: I have a device that measures heat input using a factor related to GCV (i.e., it does not have as its output mmBtu/scf and it is not a GC device) and a fuel flowmeter that doesn't measure 100 scfh. However, when the appropriate outputs of these two components are combined, it gives mmBtu/hr continuously. Therefore, the type of meter and the calculation formulas (formula codes) don't quite fit. What should we do in these cases?

ANSWER: Your methodology must be approved by the State prior to the submission of a monitoring plan as an alternative heat input methodology. The alternative monitoring methodology petition should include a detailed proposal of how you would recommend defining monitoring systems, formulas and submitting hourly data. This proposal will be reviewed by both the State and EPA. If necessary, EPA will provide or approve new codes to support the approved alternative.

J5. QUESTION: If we conduct boiler efficiency tests and can measure boiler output on a real time basis, is that a valid methodology for measuring hourly heat input?

ANSWER: That is consistent with the types of alternative heat input methodologies envisioned under the NBP technical guidance, but you must petition to use that type of methodology and will be required to demonstrate that it is as accurate as one of the accepted monitoring methods.

K. NO_x Budget Program Implementation

K1. QUESTION: During the early stages of EDR V2.0 development, EPA created a document showing example reporting requirements for several different scenarios. This document is now out of date due to changes in the record numbers between the different drafts. Will the EPA be creating a new version of this document? If so, will it contain more scenarios such as group testing? This would definitely help define the reporting requirements.

ANSWER: EPA has received a number of requests for additional written documentation EPA will be releasing additional documentation as part of a series of Regional meetings on NBP implementation. It will also be available on the Acid Rain Division's Home Page.

K2. QUESTION: Please clarify the regulatory status of the guidance provided in the Acid Rain Program Policy Manual with regard to NO_x Budget Monitoring.

ANSWER: In general, the Acid Rain Policy Manual may be used. However, the questions were not written with NO_x mass reporting or EDR V2.0 in mind, so some of them may not be applicable (or may be applicable with slight modification). EPA will try to provide more complete guidance on which questions are not applicable.

K3. QUESTION: What is the status of State rulemaking efforts to establish the NO_x Budget Program?

ANSWER: The OTC section of the Acid Rain Homepage contains links to State pages which have updates on the State's rulemaking efforts to establish the NO_x Budget Program.

K4. QUESTION: What is the timetable for all EPA reviews of emissions data to be completed, and for trading to begin again after the end of the year true-up process?

ANSWER: If the final EDR data is due on October 30, most issues should be settled by March 31 of the following year. This is similar to the timetable currently used with the Acid Rain Program.

K5. QUESTION: How should conflicts between NO_x budget monitoring methodologies and the methodologies used for State reporting requirements be resolved? Who should be contacted with additional technical questions that may result during the implementation of this plan?

ANSWER: In general, you should contact your State or local agency for guidance on how to meet the requirements of both the NBP and State regulations, where there is an apparent inconsistency. States will work with owners and operators and EPA to facilitate resolution of these issues.

K6. QUESTION: Do any plans exist to merge both State and federal emission reporting functions into one overall report, thus eliminating the redundancy and complexity of various reporting functions?

ANSWER: EPA and States have discussed consolidated reporting requirements and Pennsylvania is currently developing EDR record types which would support State reporting requirements.

K7. QUESTION: Will both the State and EPA have to approve each monitoring plan?

ANSWER: States approve NBP monitoring plans. If alternatives are proposed, the State will work with EPA to ensure responses that are consistent with other States.

K8. QUESTION: Will the revisions to Part 75 affect the requirements for NBP-only units?

ANSWER: Some of the changes to Part 75 were already incorporated in the NBP Technical Guidance. EPA and States have not yet determined how those revisions will impact the NBP, but they anticipate not requiring NBP units to use the new requirements but possibly allowing them to take advantage of the added flexibility. However, some State rules must reference a specific versions of Part 75, so revisions to State rules might also be required. Note that EPA's proposed NO_x trading Program for States in the SIP Call Region proposes to require Part 75 monitoring. This would require sources involved to meet the revised Part 75 requirements and to upgrade to EDR v2.1.

L. NBP Requirements for Acid Rain Units

L1. QUESTION: The instructions for EDR V2.0 state: "In RT 520, provide the formulas that will be used to calculate required data from primary monitoring systems defined in RT 510. It is not necessary to define formulas referencing backup monitoring systems if the backup monitoring system(s) measure on the same monitor basis for the same parameter and therefore would use the same formulas as the primary system." How soon will this be allowed for the ARP?

ANSWER: Part 75 units will be allowed to use this option in the third quarter of 1998, when ETS has been modified to accept EDR V2.0 reporting.

L2. QUESTION: Will there be additional certification requirements for existing Acid Rain monitoring systems used to measure and report data for the NO_x Budget Program? For example, do I need to conduct and submit DAHS verification of the NO_x mass emissions calculations performed by the DAHS?

ANSWER: No. While EPA strongly recommends that sources perform their own DAHS verification, it is not required. It is only necessary to continue to perform all required ongoing quality assurance testing for your existing Part 75 certified monitoring systems. When you make software changes to your DAHS to calculate NO_x mass emissions, test these changes according to an appropriate test protocol, as you would a Part 75 Appendix D monitoring system. You are not required to submit a DAHS verification of these changes unless your State requires you to do so. EPA will check these calculations in the first quarterly report containing hourly NO_x mass emissions.

L3. QUESTION: If I have an Acid Rain unit which also reports for the NO_x Budget Program, do I have to submit two separate reports each quarter?

ANSWER: No. You must submit only one report containing both Acid Rain data and data required for the NO_x Budget Program.

L4. QUESTION: Will Acid Rain units be required to report NO_x mass emissions in RTs 307 (cumulative) and 328 (hourly) throughout the year, or just in the ozone season?

ANSWER: Beginning in 1999 Acid Rain units are required to report NO_x mass emissions for each hour of the year using RT 328 and the ozone season and quarterly totals in RTs 307.

L5. QUESTION: I have an Acid Rain affected unit, now affected by the NO_x budget program. Can I designate a different person as the Authorized Account Representation (AAR) for the NO_x Budget Program than I have as the Designated Representative (DR) for the Acid Rain Program?

ANSWER: Although it is not required, EPA strongly encourages all utilities to designate the same person as DR and as AAAR. Designating the same person for these responsibilities will facilitate the submission and certification of electronic reporting of quarterly reports. When a quarterly report is submitted electronically, only one representative is authorized by EPA to submit a data file directly to the mainframe. If electronic signatures are used in the data file (RTs 900 and 901 for the DR and RTs 930 and 931 for the AAR), the certification information in these record types must match the representative submitting the data. Since only one representative is sending and certifying the data, the other representative will have to submit a hard copy certification letter each quarter. If the DR and AAR are the same, the data would be certified with the electronic signature record types.

L6. QUESTION: Will ARP units be allowed to submit RT 623 (for reporting the results of an online-offline demonstration) before the required date of 1/1/2000?

ANSWER: In general, most Acid Rain units that intend to use the offline calibration option have already performed this test. However, EPA recognizes that some units may be performing this test in the future. EPA will accept this record from Acid Rain units starting in the third quarter of 1998 (when ETS has been modified to accept EDR V2.0 records).

L7. QUESTION: For an Acid Rain unit are NO_x mass emissions data required on the first day of the ozone season or not until September of 1999?

ANSWER: Acid Rain sources should record and report NO_x mass emissions starting with the first day of the ozone season, May 1, 1999. Therefore, for ARP units the second quarter 1999 EDR, which is due on July 30, 1999, will be the first submission which must include hourly NO_x mass emissions data.

L8. QUESTION: Are there additional NBP certification requirements for an Acid Rain source with certified monitoring systems?

ANSWER: In general no, but you will need to add NO_x mass formulas and verify those calculations. Acid Rain sources do not need to change the current quality assurance testing for NBP purposes. For example, there is no requirement to report NO_x RATA data in lb/hr.

L9. QUESTION: May a Part 75 source begin reporting RT 307 and RT 328 earlier than required and start reporting in EDR v2.0 in third quarter 1998? How early may Part 75 sources begin reporting in EDR v2.1?

ANSWER: Yes, a Part 75 source may report in EDR v2.0 in third quarter 1998 as long as that is indicated in the RT 100 and all of the required additional records are included (i.e., RTs 102, 307, 328, 505, 520 (NO_x mass formula), 930 and 931). Part 75 sources will be required to start reporting in EDR v2.1 for first quarter 2000, but may start using v2.1 sometime in 1999, depending on the final promulgation date of the soon-to-be-proposed Part 75 revisions.

L10. QUESTION: If I have previously submitted a Part 75 monitoring plan, does that fulfill the monitoring plan requirements for the NO_x Budget Program?

ANSWER: The previous hardcopy plan does not need to be resubmitted unless there have been changes or the State requires it to be submitted. Note that the EDR monitoring plan data submitted for third quarter 1998 must include some additional EDR v2.0 record types, including RT 102, RT 505 (Program Indicator) and RT 520 (NO_x mass emission formula(s)).

M. Technical Guidance

M1. QUESTION: Please clarify that the data set for determining the highest observed hourly heat input over the last five years used as the basis for designating a unit-specific maximum default heat input may be confined to ozone season periods.

ANSWER: Individual States may decide to allow sources to determine highest observed heat input values based on ozone season periods.

M2. QUESTION: If I use one of the standard methodologies for determining heat input that is included in the monitoring guidance (such as Appendix D fuel sampling or a default factor), do I have to perform a heat input RATA? Do I have to petition the State Agency?

ANSWER: No, you only have to perform a heat input RATA if you petition your State to use a non-standard heat input methodology (a methodology such as the monitoring of steam output or the monitoring of solid fuel usage) that is not specifically outlined in the monitoring guidance. Petitions are only required for alternative heat input methodologies, not for Appendix D fuel sampling or the use of maximum heat input as a default.

M3. QUESTION: Under Section I. of the General Monitoring Information in the Technical Guidance it says that "For units combusting multiple fuels during any hour in the budget period, an owner or operator may apportion each fuel equally to operating hours during which that fuel was combusted,..."

We interpret this to mean that if during any single hour during the apportioned period , more than one fuel (fuels A and B) are simultaneously combusted, then for the entire apportioning period, any hour that fuel A is burned either singly or in combination with any
other fuel, is apportioned using the following equation:

(quantity of fuel)
---------- = quantity apportioned to that hour
(operating hours)

Thus, assigning the same fuel flow rate to all hours during which fuel A is burned during the period without regard to load, operating time, or other concurrently burning fuels, the same would be true for fuel B. Is this interpretation correct?

ANSWER: Yes.

M4. QUESTION: Must a unit using solid fuel install a dedicated flue gas moisture analysis system or can a moisture constant be used and be based upon historical data?

ANSWER: The Technical Guidance allows the use of a moisture constant only for oil or gas-fired CEMS units. Owners or operators of solid fuel units must measure moisture on an hourly basis.

M5. QUESTION: Is oil sampling and testing required when oil is used only as a start-up fuel?

ANSWER: The Technical Guidance allows you to use different methodologies for different fuels. If the amount of oil combustion is low, you may elect to use default values for these hours.

M6. QUESTION: If I have a unit combusting multiple fuels (gas and oil) and using fuel-specific default NO_x rates, what default should I use during multiple fuel hours Should I report the higher default NO_x rate for the hour?

ANSWER: Yes, For a unit using fuel-specific default NO_x rates, report the higher default NO_x rate during multiple fuel hours.

M7. QUESTION: If a CEMS system relative accuracy is greater than 10% (and less than 20%), is a fixed adjustment factor applied?

ANSWER: Yes, an adjustment factor of 1.1 is applied to each hour.

M8. QUESTION: As an oil refinery burning refinery gas, we are using an online calorimeter to monitor GCV (in combination with a gas fuel flow meter) to calculate heat input. Does this approach qualify as Appendix D monitoring or do we need to petition for approval of this approach?

ANSWER: Although it is similar to Appendix D, you do need to petition for this approach and include documentation supporting its accuracy. However, unlike some "alternative" monitoring approaches for heat input, it should not be necessary to perform annual heat input RATAs.

M9. QUESTION: Can we use the GCV value provided by our natural gas supplier rather than conducting independent fuel sampling and analysis?

ANSWER: Documentation of the gas supplier's analysis should be provided to demonstrate that is meets the Part 75 requirements, but it is likely that would be acceptable.

M10. QUESTION: Are Predictive Emissions Monitoring Systems (PEMS) acceptable under the NBP?

ANSWER: PEMS are allowed if they are approved under the provisions of Subpart E of Part 75 (Alternative monitoring), which requires a 30 day demonstration.

M11. QUESTION: We burn a secondary fuel just for start-up purposes. Must the heat input from that fuel be monitored and reported and must we certify a methodology for that measurement?

ANSWER: For a coal fired unit using a NO_x , diluent and flow CEMS to monitor NO_x mass, these CEMS would measure heat input during which any type of fuel was combusted, including start up periods. If you petition for an alternative heat input methodology associated with coal combustion, you would also need to propose a monitoring methodology for heat input associated with gas or oil combustion as part of your monitoring plan.

For units using Part 75 Appendix D procedures to account for heat input, it is acceptable to use the Appendix D methodologies for startup (see Section 2.1.4 of Appendix D).

N. Monitoring Plan Checking Software and Other EPA Software

N1. QUESTION: Does the Monitoring Plan Checking Software provide the line number of the error within the file in an error message?

ANSWER: No. After the monitoring plan data is imported, the data is stored in database formats. It is not possible to identify the line number from the stored data.

N2. QUESTION: Does the Monitoring Plan Checking Software import the entire EDR or just the records being checked?

ANSWER: An entire EDR may be selected, but only the RT 500s are imported and checked. All other Record Types will be ignored.

N3. QUESTION: How can help be obtained if there are problems with downloading or using the Monitoring Plan Software?

ANSWER: You may obtain assistance with the software by contacting EPA or PQA.

N4. QUESTION: Is the Monitoring Plan Checking Software a prototype of a version to be used for the Acid Rain Program?

ANSWER: Yes, EPA plans to expand this software to perform checks for both the ARP and the NBP.

N5. QUESTION: How can the Monitoring Plan Checking Software Version 1.1 be obtained if an owner or operator does not have access to the World Wide Web?

ANSWER: An owner or operator without Web access should contact EPA, who will provide copies of the software on diskette or CD.

N6. QUESTION: Does EPA plan to completely replace hard copy certification test data with the electronic form of the data, which can be viewed using the PC-Cert software?

ANSWER: No. PC-Cert is a PC-based Windows software package currently under development by EPA. It is used to view the RT 500+ and 600+ data, and hard copy certification data is still required.

N7. QUESTION: Does PC-Cert allow RATA data input?

ANSWER: No, the current version of PC-Cert does not allow the user to input or change data. It reads and prints out the data submitted in RTs 500+ and 600+. However, data input is a suggestion EPA is considering incorporating.

N8. QUESTION: Is PC-Cert available now?

ANSWER: PC-Cert is not available now, but will hopefully be available in the summer or fall of 1998. Recommendations concerning this software should be submitted as soon as possible so that they may be incorporated as it is being developed.

N9. QUESTION: Where is the REVU-EDR software available? Is there sample data with it?

ANSWER: REVU-EDR is a Windows PC-based software tool which allows you to view EDR emissions data on the screen and to export data to .wk1 formats. It can be found on the Acid Rain Home Page, Emissions Data..... While REVU-EDR does not contain sample data, the Acid Rain Home Page contains 1996 and 1997 EDR files which can be downloaded and used with the software.

N10. QUESTION: Are there any third parties working on software to allow similar checking as performed in the Monitoring Plan Checking Software on other portions of reported data? For example, the DCAS program checks missing data routines for ARP units using CEMS.

ANSWER: The Acid Rain Division has plans to check missing data routines in quarterly EDRs submitted to EPA's mainframe. However, there are no plans to develop a DCAS equivalent for the NO_x Budget Program or to update DCAS for current Acid Rain Program requirements.

N11. QUESTION: How can I obtain descriptions of all the codes used in the EDR monitoring plan?

ANSWER: The MP Checking software data entry module provides complete descriptions of the available choices for relevant fields on each edit screen. Those codes are also defined in the "NO_x Budget Program Monitoring Certification and Reporting Instructions."

N12. QUESTION: Is there a specification or protocol for the ETS-PC link feature so that vendors could incorporate the electronic interface with ETS in their DAHS software?

ANSWER: Because of mainframe security and technical support issues, EPA does not intend to release specifications or programming code which would allow DAHS vendors to incorporate portions of the ETS-PC interface within their software packages.

N13. QUESTION: The Monitoring Plan Checking (MPC) software has a "tables maintenance" utility which allows the user to add codes to the look-up tables for certain fields. How do we know when that is allowable and which codes can be added?

ANSWER: Additional codes will be published on the ARP website as they are established. Also, you can call your State or the Acid Rain Division to discuss any fields for which you believe additional codes are needed.

N14. QUESTION: Will PC-CERT examine the application of the BAF to hourly data?

ANSWER: No. PC-CERT only displays and recalculates the certification test data.

State-Specific Questions

MASSACHUSETTS

MA1. QUESTION: Are monitoring plans from Massachusetts facilities due January 1, 1998? Would you consider allowing an extension contingent on an agreement for early certification? This might be a good compromise between the States and sources, and would act as incentive for the sources to certify early.

ANSWER: The official due date has been extended until March 1, 1998. The deadline may be extended further on a case-by-case basis.

MAINE

ME1. QUESTION: What is the monitoring plan submission deadline for Maine facilities?

ANSWER: Maine is still working on its rule, so there is no official deadline. Contact the State Agency for more information on projected schedules and deadlines.

MARYLAND

MD1. QUESTION: The pre-proposal rule indicated that monitoring plans would be due by May 31, 1998. Will that deadline be kept in the final rule?

ANSWER: Yes. The schedule still calls for Monitoring Plans and AAR forms to be submitted by May 31, 1998.

MD2. QUESTION: Will the final rule keep the proposed applicability size cut-off of 15 MW?

ANSWER: The proposal still limits applicability to at least 15 MW for utility units or at least 250 mmBtu for non utility generators.

MD3. QUESTION: What are the monitoring plan submission requirements for Maryland? Must an Acid Rain Program unit in Maryland submit a hardcopy monitoring plan?

ANSWER: Once the rule is final, the MDE will send a letter explaining what submissions are required. In general, ARP units will need to submit any hardcopy documentation that has not already been submitted or has been updated and will need to add the required EDR v2.0 records to the electronic monitoring plan (by the third quarter, 1998 EDR). All monitoring plans submissions should be sent directly to the MDE.

MD4. QUESTION: Will the MDE keep the Technical Guidance deadline of April 30, 1999 for system certifications?

ANSWER: Yes.

NEW JERSEY

NJ1. QUESTION: Part 75 has alternative certification and QA test specifications for low emitters. Will the NJ DEP accept those criteria?

ANSWER: NJ is unlikely to be more stringent than the Acid Rain Program requirements, so NBP sources should refer to the NBP technical guidance for low emitter specifications.

NJ2. QUESTION: The NJ proposed rule monitoring requirements differ from the NBP technical guidance in several areas. For example, the proposed rule states that long term fuel flow may only be used by units of less than 25 MW and must be at least weekly. It also states that peaking units greater than 25 MW may not use unit specific NO_x default rates. Will the final rule revise those requirements to be consistent with the technical guidance?

ANSWER: NJ intended to be consistent with the NBP guidance and plans to address such discrepancies in the final rule.

NJ3. QUESTION: Please clarify the heat input monitoring requirement for New Jersey.

ANSWER: NJ NBP sources must monitor and report hourly heat input. Therefore they may not use the option of a NO_x concentration system and stack flow monitor.

NJ4. QUESTION: The NJ draft rule requires reporting of some additional heat input and electrical output values which are not supported by EDR 2.0. How will that data be reported?

ANSWER: EPA is working with NJ (and other States) to develop RTs 800 which might be used for such additional reporting. These additional values will not be required until 1999, at which time they will be used to support allocation of allowances. The final rule will provide guidance on how the values should be determined and NJ will develop the appropriate forms.

NJ5. QUESTION: When are NJ Monitoring Plans due?

ANSWER: They will be due as of the effective date of the final rule, which is 60 days after it is signed by the administrator. The current rule schedule would have the rule signed about March 15 and plans due about May 15. Although NJ cannot require plans before the operative date of the rule, the final requirements will be known when the rule is signed. Earlier submissions are encouraged and could be approved before the operative date.

NJ6. QUESTION: What are the specific requirements for monitoring plan submissions and where are they documented?

ANSWER: The draft NJ rule references the NBP technical guidance document. Monitoring plan submission requirements are also listed in the "NO_x Budget Program Monitoring Certification and Reporting Instructions." NJ sources should send three copies of the complete monitoring plan package to the NJ DEP. Additional questions about supplementary information, such as siting of a new CEMS, should be addressed to NJ DEP Bureau of Technical Services.

NJ7. QUESTION: When are AAR forms for NJ due and where should they be submitted?

ANSWER: AAR forms should be submitted to the NJ DEP with or before the monitoring plan. (The draft NJ rule states that AAR forms are due 60 days after the rule's operative date, but this will be changed in the final rule.)

NJ8. QUESTION: Must the Monitoring Plan be included in the permit and if so when does the permit modification have to be made?

ANSWER: That depends on the changes required by the NBP. Minor monitoring changes won't be considered a major modification. NJ hopes that none of the changes will require a public comment period, but that ultimately depends on the Title V requirements.

NJ9. QUESTION: When are test notices and test protocols due in NJ?

ANSWER: Although the rule does not specify the deadline, NJ would like to see those 60 days before testing (30 days minimum). NJ plans to observe certification testing for the NBP.

NJ10. QUESTION: If we install a new DAHS do we need to do RATAs for recertification?

ANSWER: NJ generally just requires a calibration test to ensure that the DAHS is working and the formulas are correct.

NJ11. QUESTION: Are we now doing a quarterly linearity instead of quarterly CGAs?

ANSWER: Yes. NJ has deferred to the NBP quality assurance requirements.

NJ12. QUESTION: Must we submit a Part 60 Monitoring Protocol in addition to the NBP monitoring plan?

ANSWER: No, but be sure that the OTC NBP monitoring plan includes all of the information that would have been included in the Part 60 protocol.

PENNSYLVANIA

PA1. QUESTION: Will Pennsylvania accept the print-out of the monitoring plan from the monitoring plan checking software as the required hardcopy submission?

ANSWER: Yes, as long as any additional required information is also included in the submission. (See C3, 11/6/97)

PA2. QUESTION: In RT 510, column 70 for component serial number, should we list the Pennsylvania monitor number?

ANSWER: No, list the actual serial number from the analyzer.

PA3. QUESTION: How many copies of the monitoring plan are due on January 1, 1998 for Pennsylvania sources?

ANSWER: Submit two complete copies of the entire monitoring plan package. This should include two disks containing the electronic monitoring plan (RTs 100 and 500+) and two copies of the submission letter and any other required hardcopy documents (such as the schematics).

PA4. QUESTION: If a unit is not subject to any emission limits or reporting requirements for the State of Pennsylvania under Chapter 139, must it meet Chapter 139 QA requirements as part of the NBP?

ANSWER: No. Chapter 139 would not be applicable. That unit would only be required to comply with NBP requirements.

PA5. QUESTION: For a Pennsylvania unit subject to Chapter 139, can we petition the State to apply Part 75 Quality Assurance procedures instead of the PA Continuous Emissions Monitoring requirements for all parameters in addition to the NO_x CEMS?

ANSWER: You may petition the State for any exceptions, but Pennsylvania will have to receive the emissions data in the units of the standard for the applicable program.

PA6. QUESTION: Non-Part 75 units will submit their first quarterly report in October, 1998. As a Pennsylvania unit, must we submit a report every quarter after that?

ANSWER: Yes. All Pennsylvania sources must submit EDR reports each quarter, regardless of the type of monitoring methodology used.

PA7. QUESTION: Chapter 139 requires filing a Phase 1 modification if the monitoring plan is changed. Would switching to reporting of RTs 800 constitute such a change?

ANSWER: If you switch to combined reporting (having obtained the necessary waivers) that would require changing the DAHS and would therefore constitute a Phase 1 modification. You also have the option of continuing to report in the old formats, but if you use the data substitution procedures for the NBP, you would need additional information for your Chapter 139 report.

PA8. QUESTION: If the span and range established for Chapter 139 do not meet the guidance for the NBP, must we change them?

ANSWER: Chapter 139 requirements are flexible. But the concept in "span" differs for the two programs and you may need to request a waiver if you cannot meet the requirements of both programs.

PA9. QUESTION: For a Pennsylvania oil and gas unit greater than 250 mmBtu, do we need to submit a petition in order to use Appendix E and Appendix D?

ANSWER: Yes, the Technical Guidance restricts use of Appendix E to oil and gas-fired units with maximum hourly heat input less than 250 mmBtu. The Pennsylvania rule incorporates by reference the monitoring requirements listed in the technical guidance.

PA10. QUESTION: Pennsylvania requires five challenges for a linearity test but the NBP only requires three. Will you just use the last three to calculate results for the NBP?

ANSWER: If you report more than the nine required gas injections as part of a test because of State test requirements, report all injections using the same test number. EPA will evaluate only the last three injections at each level, as indicated by the date and time of the injection. Prior injections will be disregarded in the calculations of results. Calculate and report results under Part 75 and for the NO_x Budget Program using only these injections.